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December, 1955

SOAP *and* Chemical Specialties

In this issue...

arketing case history a liquid detergent

. . .

pecialty makers gather 42nd annual meeting

. . .

en-years of aerosols consumer products

. . .

Newest use for EQ-53: eather insect control

Cover photo . . . "Gee", newest entry of Armour & Co., Chicago, in detergent derby, is first heavy duty liquid. For clothes washing machines, product comes in two sizes: 14 and 24 ounce cans.




Wishing You A
Joyous Christmas
and a
Bright New Year
D&O
ESTABLISHED 1798

A GREAT NEW PRODUCT! A TERRIFIC PACKAGING INNOVATION!
SAFE FOR BOWLS . . . AND . . . PORCELAIN ENAMEL

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Liquid Bowl and Porcelain
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DIP! Dip mop into handy, wide-mouth OUT jug. Convenient handle makes it easy to carry. No uninhibited acids to ruin clothing, injure hands. No poison label required. Use on porcelain enamel as well as viterous ware.

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OUT! Odors go OUT! Dirt, filth go OUT! Rust, iron scale, hard water stains clear OUT . . . *fast!*

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Action of OUT has been verified by DILUTION "CONFIRMATION TEST" using Salmonella Cholerasuis.



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For additional information and OUT prices, write or wire:*

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with LUDOX* added

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*LUDOX Colloidal Silica, Trademark of E. I. Dupont de Nemours & Co., (Inc.) Reg. U. S. Pat. Off.

"The laboratory research effort of our organization is very important in our development of new useful products. If a definite improvement can be accomplished by the use of new additives, we endeavor to formulate such ingredients so as to produce final products which conform to our very high standards of product function.
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- CAND-DOX® # BB
- Candy's SUPREME (Standard)
- BRIGHT BEAUTY (Standard)
- Candy's SUPREME Special WR.

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SOAP and Chemical Specialties

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If you are looking for the "extra something" to lift your product above competition—at no extra cost—discuss your problem now with a Johns-Manville Celite Engineer. For further information and samples, write Johns-Manville, Box 60, New York 16, New York. In Canada: 199 Bay St., Toronto 1, Canada.

Add all these product advantages—*with Celite*

- Added Bulk
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- Greater Absorption
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*Celite is Johns-Manville's registered Trade Mark for its diatomaceous silica products.

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TRISODIUM PHOSPHATE

ANHYDROUS

(instead of T. S. P. Crystals)

If you live in a desert, it may make sense to pay for water. But in the chemical business, needless delivery charges on water is money down the drain.

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You save on first cost, too. Currently, the anhydrous T.S.P. content of T.S.P. Crystals sells for $9.74; WESTVACO T.S.P. Anhydrous for $8.45—both prices f.o.b. on an anhydrous basis. This saving is *in addition to what you save on delivery costs.*

If you must use T.S.P. Crystals, we hope you are located near a producing point. If you *can* use WESTVACO T.S.P. Anhydrous, we can save you real money. A phone call or letter will bring an exact quotation. Why not find out right now?

*L.C.L. delivery 250 miles from producing point. Get an exact quote on your savings.

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PEPCO SHINE is harmless, has no objectionable odor. Underwriters' Laboratories approved (non-flammable).

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WRITE FOR FREE SAMPLE
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C·64 Technical . . . AN EXTREMELY STABLE AROMATIC WITH A POWERFUL WOODY CHARACTER

From a new process comes an outstanding intensifier and fixative for soap, cosmetic and other perfumes at a new low price

A few typical properties of C·64 Technical:

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Specific gravity at 25°C./25°C.	0.930-0.933
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Soluble in all essential oils and alcohol

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This new aromatic material is also showing great value as a primary ingredient in reodorant compounds for masking product and processing odors.

Write on your company letterhead for a sample and additional information today. THE DOW CHEMICAL COMPANY, Midland, Michigan, Dept. AR 373C-1.

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DOW

A message to SOAP INDUSTRY MANAGEMENT

Here's how you can use

STRATEGIC PURCHASING

to help your company maintain a sound competitive position

As profit margins tighten, your purchasing strategy becomes a vital force for success.

The way you purchase heavy chemicals, for instance, can influence your company's profits in the years ahead.

So it becomes increasingly important for you to seek every possible economic advantage when you select a chemical supplier.

Here, for example, are a few things to look for, when deciding on a source for caustic soda and other chemicals:

1. Supply security. How flexible are your supply lines? For instance, a supplier with plants located on deep water may be able to offer you a choice of rail or water delivery. This can insure you steady supply, in case of rail service interruption.

2. Engineering help. A supplier's engineering staff can often be valuable to you when you are setting up a new chemical process or caustic handling system—not only with advice, but with actual design assistance.

3. Smooth processing. You'll find it helpful to work with the supplier's technical service men who visit you periodically. Often these men can spot potential problems and ward them off before they cause you trouble.

4. Safety programs. Your men can benefit from safety suggestions offered by your supplier. You should have on tap the latest in safety equipment, plus up-to-date information on safe handling of chemicals.

5. Economy. Choose a supplier who wants to help you cut your operating costs; who will go all the way with you in arriving at the best, most advantageous method of shipping and handling for your conditions.

6. Experience. Above all, choose a supplier who is familiar with your industry. It takes years of experience to acquire an understanding of the problems you face, and the know-how to help you solve them quickly and economically.

Are you getting your fair share of these strategic purchasing advantages?

Many of our customers in the soap industry feel that they get these advantages in buying from Hooker, a supplier of basic chemical materials to industry for fifty years.

In the light of the growing importance of these factors, isn't this a good time to review your policies on sources of chemical supply?

HOOKER CHEMICALS

1905—Half a Century of Chemicals
From the Salt of the Earth—1955

HOOKER ELECTROCHEMICAL COMPANY

Buffalo Avenue & Union Street, Niagara Falls, N. Y.

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SIPEX
SIPONICS

ALCOLAC News

SIPON
SIPONOLS

American Alcolac Corp. Baltimore, Md. December, 1955

ALCOLAC'S NEW FATTY ALCOHOL SULFATES OPEN WIDER RANGE OF APPLICATIONS

New Sodium Tallow Sulfate is suitable for Household Detergents, laundry and industrial cleansing and textile scouring

The low cost of SIPEX TS, American Alcolac's new sodium tallow sulfate, makes it practical for use in a greatly extended range of applications. It is the lowest priced fatty alcohol sulfate available today. Excellent detergency at high temperatures makes SIPEX TS suitable for industrial use as well as in household products. The new product is an anionic paste, with a mild, pleasant odor.

PRACTICAL FOR HOME AND COMMERCIAL LAUNDERING COMPOUNDS

SIPEX TS gives superior detergency at temperatures in excess of 140° F., and leaves cottons and woolens lustrous, soft and manageable. It will boost the detergency and stabilize the foam of household laundry powders using alkyl aryl sulfonates and inorganic builders. It is ideally suited for use in textile scouring, fur cleaning and commercial laundering. The mild emollient action of SIPEX TS may be used advantageously in cleansing materials where gentle cleansing is desired. Generous samples are available for testing under your own conditions.

NEW DETERGENT BASE IS COMPATIBLE WITH SOAP AND GREASE

A new modified Na lauryl sulfate, designated SIPEX 7WC has been announced by American Alcolac. This synthetic detergent has been especially designed to produce high foam that is stable in the presence of soap and grease. Since the foam of most detergents is unstable in the presence of soap or grease, SIPEX 7WC offers great potential to makers of bubble bath and dishwashing compounds, floor cleaners and similar products. Its foam has been proven stable to soap several times longer than other materials tested.

EXCELLENT BASE FOR BUBBLE BATHS

SIPEX 7WC may be diluted up to 75% with water to give a viscuous liquid at less than 8¢ per pound. This sparkling clear material may be colored and perfumed as desired. Little compounding is required; simply add hot water and stir. The final product will give high foam with excellent stability in the presence of soap.

American Alcolac's wide range of experience is available to companies whose products can benefit through the use of fine synthetic detergents. Use the coupon for full information, or write us in complete confidence regarding your problem.

LABORATORY SERVICES EXPANDED

Laboratory facilities at American Alcolac are being doubled, in order to enlarge the scope of customer service and commercial application research. This move is in line with Alcolac's policy of providing the best possible products and services to customers.

AMERICAN ALCOLAC WISHES YOU A **MERRY CHRISTMAS** AND A **BRIGHT, HAPPY NEW YEAR**

CLIP AND MAIL THIS COUPON

AMERICAN ALCOLAC CORP., 3440 Fairfield Rd., Baltimore 26, Md.

Please send complete information on SIPEX TS ☐ SIPEX 7WC ☐

Please send sample of SIPEX TS ☐ SIPEX 7WC ☐

I am interested in obtaining data regarding the use of your products for the following application: .....

.....

NAME .....TITLE.....

COMPANY .....

ADDRESS.....

CITY .....ZONE .....STATE ....



Other Oronite Surface Active Products:

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Detergent Slurry
Detergent D-60
Purified Sulfonates
Sodium Sulfonate No. 5
Wetting Agents
Dispersant NI-O
Dispersant NI-W
Dispersant FO
(Burner Oil Additive)

ORONITE CHEMICAL COMPANY

3400

Switch to D-40SF (the *dust-free* flake form of Detergent D-40) to repackage for car wash or other light duty products—or compound D-40SF for heavy duty use. You'll discover there is none of the annoying dust so frequently associated with dry detergents.

Oronite's unique classifying system in the manufacturing process eliminates the fine dust particles from D-40SF, providing you a desirable dust-free product. Prove this to your own satisfaction. Write for a free sample of D-40SF and compare it to the product you are now using. You'll see the difference immediately. And this extra quality feature of D-40SF is at no premium in cost.

Oronite, the world's largest producer of detergent raw materials, offers Detergent D-40 in three different particle sizes—flakes (D-40SF), granules (D-40) and powder (D-40FG). Write any Oronite office for free samples or "use" bulletins showing a variety of fields where D-40 can be successfully used.

ORONITE CHEMICAL COMPANY

200 Bush Street, San Francisco 20, California
30 Rockefeller Plaza, New York 20, New York
20 North Wacker Drive, Chicago 6, Illinois
714 W. Olympic Blvd., Los Angeles 15, California
Mercantile Securities Building, Dallas 1, Texas
Carew Tower, Cincinnati 2, Ohio

After Closing . . .

Lee to Continental Filling

Harold V. Lee, formerly vice-president in charge of the New York plant of G. Barr and



Harold V. Lee

Co., Chicago aerosol fillers, recently resigned to become eastern sales manager for Continental Filling Corp., Danville, Ill. Before joining G. Barr and Co., last year, Mr. Lee had been purchasing agent for Revlon Products Corp., New York. He was elected, last summer, vice-president in charge of all of the New York plant operations of Barr, including development, laboratory, production and sales.

—★—

E. D. Winkworth Dies

Edwin D. Winkworth, 78, president of Solvay Process Co. from 1922 until his retirement in 1924, died Nov. 15 at his home in Solvay, a suburb of Syracuse, N. Y. Solvay Process Co., now is a division of Allied Chemical & Dye Corp., New York.

—★—

New Armour Detergent

"Gee," a new heavy duty liquid detergent, was introduced by Armour & Co., Chicago, in Jackson, Miss., recently. The product is designed for use in automatic washing machines. Packaged in 14 and 22 ounce cans, "Gee" retails for 39 and 65 cents. Newspaper advertising and mass display featured the introduction of the product in Jackson. It is believed to be the first "heavy duty" liquid detergent for household use.

In addition to Jackson, Miss., Armour is also test marketing "Gee" in Montgomery, Ala.; Springfield, Ill., and Terre Haute, Ind.

—★—

Pennsalt Plans Propellants

Pennsylvania Salt Manufacturing Co., Philadelphia, expects to enter the aerosol propellants field late in 1956, it was announced in November. The "Isotron" line will at first consist of trichloromonofluoromethane, dichlorodifluoromethane, and monochlorodifluoromethane. Other chlorofluorohydrocarbons to be added in the near future are trichlorofluoroethane and dichlorotetrafluoroethane. Close to extensive fluorspar mines owned by Pennsalt a multi-million dollar plant is being built at Calvert City, Ky., to produce the new "Isotron" line. Hydrofluoric acid will be pipelined to the unit from Pennsalt's hydrofluoric acid plant located nearby. The new group of products will be assigned to the industrial chemicals division and marketing plans include extensive technical service to customers.

—★—

To Wyandotte Board

Bert Cremers and Ford Ballantyne, Jr., were elected to the board of directors of Wyandotte Chemical Corp., Wyandotte, Mich., it was announced recently. Mr. Cremers is vice-president and general manager of Wyandotte's Michigan Alkali Division and Mr. Ballantyne is vice-president and general manager of the J. B. Ford Division.

With Wyandotte for over 26 years, Mr. Cremers was appointed vice-president of Michigan Alkali Sales in 1942 and assumed his present duties as head of the firm's largest division in September 1955. Michigan manufactures and sells all of the firm's chemical products including, among others, synthetic detergents, soda ash, bicarbonate of soda, caustic soda, and glycols.

A director and vice-presi-



Bert Cremers

dent of the Chlorine Institute, Mr. Cremers is past trustee of the Glass Container Manufacturers Institute. During World War II he served on the chlorine-alkali subcommittee of the Army-Navy Munitions Board.

Mr. Ballantyne, Jr., joined the company in 1942 as assistant to the vice-president of manufacturing, became assistant to the president in 1949, and shortly thereafter was elected a vice-president. In 1953, he assumed full responsibility for the management of the J. B. Ford Division, which manufactures and sells Wyandotte's line of industrial cleaning compounds and specialty chemicals.

—★—

Babbit Buys Cameo

B. T. Babbitt, Inc., New York, has acquired Cameo Corp., Chicago, manufacturers of "Cameo" copper cleaner and "Cameo" cleanser, it was announced in late November. An intensified advertising and promotion program on behalf of "Cameo" products is planned by Babbitt for the beginning of 1956.

Cereghino to Trendex

Albert C. Cereghino has joined the Trendex Division of Humko Co., Memphis, Tenn., as



Alber C. Cereghino

head of sales and product development of fatty acids and glycerides in the New York, Philadelphia, and Boston areas, it was announced last month. Prior to his recent appointment Mr. Cereghino was director of commercial development for Luria-Cournand, Inc., New York, and before that he was associated with Atlas Powder Co., Wilmington, Del.

—★—

Electromatic Mark Passed

The trademark "Electromatic" has been registered recently by the Mojonnier-Dawson Co. of Franklin, Ill., in the face of opposition filed by Milk Container Equipment Corp. Certificate No. 608,253 was issued by the Commissioner of Patents to Mojonnier for the mark which designates the firm's line of filling machines for the aerosol industry.

—★—

Tolerances for "Karmex"

Residue tolerance levels of one part per million for the active ingredients of "Karmex" herbicides have been established by the Food and Drug Administration, it was announced recently by E. I. du Pont de Nemours & Co., Wilmington, Del. Commercial formulations affected are "Karmex" W, based on 3-(p-chlorophenyl)-1,1-dimethylurea; and "Karmex" DW and DL, both based on 3-(3,4-dichlorophenyl)1,1-dimethylurea.

—★—

Clayton Novel Cap Valve

A cap that is not removed from the valve for dispensing aerosol products was announced this month by Clayton Corp., St. Louis, Mo. It is simply turned to open and close the valve orifice. The new device is available in various colors and to fit a range of pressure type containers with standard one inch diameter openings.

—★—

Guenther ACS Speaker

Ernest Guenther, vice-president and technical director of Fritzsche Brothers, Inc., New York, was the guest speaker at a recent joint meeting of the Georgia section of the American Chemical Society and the Dixie section of the Institute of Food Technologists. Dr. Guenther showed motion pictures and lectured on "Essential Oil Production in Europe and North Africa" at the gathering which was held in Atlanta, Ga.

"Scamper," new liquid detergent made by Home Needs Co., Los Angeles for Safeway stores. New pink detergent comes in pink and aqua cans of 12 and 22 ounce sizes. Product is dishwashing detergent for use also in washing nylons, woolen and other fine fabrics.



Malton Joins Shulton

William C. Malton, Jr., has joined Shulton, Inc., Clifton, N. J., as advertising manager of the



William C. Malton, Jr.

firm's export and fine chemicals divisions, it was announced recently by George L. Schultz, president. Prior to joining Shulton Mr. Malton was advertising manager for Inter-American Orange Crush Co., Chicago, and earlier was advertising manager for Compania Mercantil Real, Mexico City. His new headquarters are at Shulton's New York office.

—★—

Elsworth Advanced

R. M. Hollingshead Corp., Camden, N. J., recently announced the advancement of John W. Elsworth, former assistant sales manager of the special brands division, to the post of manager of that division. Mr. Elsworth joined the firm in November 1952 as an account manager for the division and became assistant sales manager in January of this year. For seven years prior to his joining Hollingshead he was associated with Sun Oil Co., Philadelphia.

—★—

Polak & Schwartz List

Acetals are the group of compounds singled out for detailed description in the October/November issue of the catalog and price list of Polak & Schwarz, Zaandam, Holland. As usual quotations are in English and Dutch currency.

Fogarty Cont'l Can Pres.

Thomas C. Fogarty has been elected president of Continental Can Co., New York, effec-



Thomas C. Fogarty

tive Jan. 1. He succeeds Hans A. Eggers, whose retirement will become effective on that date, it was announced late in November by Lucius D. Clay, chairman. Former executive vice-president of the metal division, Mr. Fogarty has been with Continental since 1929. From 1933 to 1944 he was division sales manager. He then was appointed eastern division sales manager and in 1946 was elected vice-president in charge of sales. In 1950 he became executive vice-president of the metal division and in 1951 he was elected to the board of directors.

Mr. Fogarty's former post as executive vice-president of the metal division will be filled by Reuben L. Perin, who had been vice-president in charge of the eastern metal division since 1950. Mr. Perin went with Continental Can in 1928. Having served as district sales manager in Cincinnati and in Chicago he was named sales manager of the Pacific division in 1942. He left San Francisco in 1944 to become general sales manager in Chicago. In 1949 he was transferred to New York as general sales manager.

Succeeding Mr. Perin in his former post as vice-president in charge of the eastern division is Orren R. McJunkins. Former general manager of the southeastern district of the eastern metal division, Mr. McJunkins joined Continental Can in 1952 as special assistant to the manager of manufacturing in the eastern division. In 1953 he was appointed general manager of the southeastern district.

Horace M. Blinn, general manager of the California district of the Pacific division since 1954, has been elected vice-president in charge of that division. He fills the vacancy which will be created by the retirement of Sherlock McKewen. Associated with the company since 1929, Mr. Blinn has served as district sales manager in Connecticut from 1943 when he was transferred to a similar post in San Francisco. In 1950 he was named assistant sales manager of the Pacific division and in 1951 became division manager of sales.

—★—

Chemical Hazards Panel

Chemical products and their hazards in the home, farm, and industry will be studied at a symposium on December 29 during the annual meeting of the American Association for the Advancement of Science in Atlanta. The symposium is being sponsored by the American Medical Association's committees on toxicology and on pesticides. These committees are working toward development of more intelligent use of chemicals so that their advantages may be enjoyed without dangerous results, according to Bernard Conley, secretary of the A.M.A. committee on pesticides. They do not mean to imply that potentially dangerous chemicals should not be used at all.

—★—

Lever Advances Williams

N. C. Williams, former eastern regional sales manager of the Lever division of Lever Brothers Co., New York, has been advanced to the post of assistant sales manager, it was announced recently. Charles Morris has been named to succeed Mr. Williams as eastern regional sales manager. He was formerly sales manager of the New York district.

Five for Earl Brenn

Mr. and Mrs. Earl Brenn announce the arrival of a daughter on November 16 at Fort Wayne, Ind. That's the way the birth announcement read, but there's more to it than meets the eye. It so happens that this young lady new arrival at the Brenn home is the fifth consecutive girl born to the Brenns. No boys. After four girls, Mr. Brenn announced as how he couldn't miss a boy on the fifth count. But fate tricked him. Mr. Brenn is vice-president of the Huntington Laboratories, Huntington, Ind. and son of J. L. Brenn, head and founder of Huntington who is currently celebrating his 35th anniversary with the company.

—★—

New Schrader Foam Valve

A new aerosol valve designed exclusively for dispensing foam type products was announced recently by A. Schrader's Son, division of Scovill Manufacturing Co., Brooklyn. The new valve, designated "Presfoam", features a "ribbon" pattern of foam dispensing that is claimed to be easier to use and reduces waste. The all-plastic valve, available in a wide range of color combinations, is equipped with a corrosion resistant stainless steel spring. Other features claimed for the valve by the manufacturer include positive locking, faster filling, better wiping action, vertical opening designed to fit the hand, positive direction, even flow rate, no extra cover to replace, ease and economy in assembly.

New Schrader foam valve



Soap Assn. Meets Jan. 25-27

Automation and nucleonics are among the timely topics to be presented at the 29th annual meeting of the Association of American Soap and Glycerine Producers, Inc., to be held at the Waldorf-Astoria Hotel, New York, Jan. 25-27.

The morning of January 25 will be taken up by concurrent business meetings of the industrial and fatty acid divisions. At luncheon E. L. Burtis of the Food and Agriculture Organization of the United Nations will review the world-wide oils and fats situation. In the afternoon the industrial division will hold six group meetings on the following topics: dishwashing, skin cleaning, food processing, fabric cleaning, building maintenance, and uses in industrial processing. At the same time the fatty acid division will hear Richard B. Mortimer, Peterson Manufacturing Co. of Los Angeles, president of the National Renderers Association on research in animal fats. Other speakers in this session are yet to be announced.

The morning session of January 26 will hear Edward Wilson of Armour & Co., Chicago, deliver the presidential address. He will be followed by Sam Barton, president of Market Research Corp. of America, New York, who will speak on current trends in soap distribution. Featured luncheon speaker is Eric Johnston, president of the Motion Picture Association of America in Washington. His talk will be followed by the presentation of the glycerine awards. In the afternoon the glycerine division and the industrial division will hold general meetings. Leo Pasternak of New York will speak on world markets in glycerine; other speakers are yet to be announced. The annual Maid of Cotton Fashion Show, sponsored by the association and by the National Cotton Council, will be held from four o'clock until six-thirty.

Automation applied to soap production operations will be studied in the first paper on the January 27 program. It will be presented by Prof. E. H. Schelle of M.I.T. Automation applied to soap marketing and office procedures will be described by one of the executives of International Business Machines Corp., New York. The impact of nucleonics on industry will be reviewed by Laughlin M. Curry, vice-president of Union Carbide Nuclear Co., New York, who will be the luncheon speaker. A general business meeting will be held on Friday afternoon. The 30th anniversary banquet will feature a show from the Latin Quarter.

—★—

Newcomb Malmstrom Pres.

E. Allen Newcomb has joined Malmstrom Chemical Corp., Newark, N. J., as president and chief executive officer it was announced late in November. He succeeds Ivar W. Malmstrom who has been elected chairman of the board. For the past 14 years Mr. Newcomb has been with the National Wholesale Druggists Association. He joined NWDA as assistant to the secretary and executive vice-president and has served as the group's executive secretary for the past five years. Prior to joining NWDA he was associated with E. R. Squibb & Sons, Inc.

—★—

Sunnyside Firm Sold

Control of Sunnyside Rendering Works, Inc., Sunnyside, Wash., was acquired last month by Royal Tallow and Soap Co., San Francisco, which operates two other plants in the Pacific Northwest. The new owners expect to expand the operation, according to Robert Miles, plant manager. Only the plant and trade name were bought by the San Francisco concern. Inventory and other assets were liquidated by a newly formed corporation: Sunny Rendering Works, Inc.

—★—

Mona Boosts Capacity

Mona Industries, Inc., Paterson, N.J., announced last month a 300 percent increase in its production capacity. This boost is due to the recently completed expansion of the firm's Paterson plant.

Soap, Syndet Sales Rise

Combined tonnage sales of soap and synthetic detergents in the third quarter of 1955 were the highest for any quarter since 1951, 10 percent above the third quarter of last year and 20 percent more than in the preceding quarter of this year. An increase of four percent over last year was reported for the combined tonnage sales in the first nine months of the year. The figures are based on comparative totals supplied by 78 companies.

Total tonnage sales of synthetic detergents for the third quarter amounted to 649,257,000 pounds worth at plant $152,828,000, compared with 558,247,000 pounds valued at $130,582,000 in the corresponding quarter of last year, and 544,726,000 pounds worth $127,-251,000 in the second quarter of this year.

Sales of soap other than liquid during the third quarter of 1955 totalled 375,361,000 pounds valued at $91,234,000 as against 370,225,000 pounds at $84,615,000 in the third quarter of last year and 300,961,000 pounds at $72,130,000 in the second quarter of this year.

Liquid soap sales for the third quarter of this year are reported at 1,029,000 gallons valued at $1,771,000, compared with 689,-000 gallons at $1,122,000 in the corresponding quarter of 1954 and 959,000 gallons and $1,459,000 in the second quarter of this year.

For the first nine months of the current year sales of synthetic detergents were 1,746,824,000 pounds valued at $407,223,000 compared with 1,579,393,000 pounds at $363,014 in the corresponding period of 1954.

Other than liquid soap sales during the first nine months of 1955 totalled 1,027,566,000 pounds worth $243,526,000 against 1,091,-803,000 pounds and $240,603,000 in 1954.

Liquid soap sold in the first nine months of this year amounted to 3,700,000 gallons valued at $5,900,000 compared with 3,400,000 gallons and $4,996,000 in the corresponding period in 1954.

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Case History No. 35-21 . . . A large manufacturer of waterless hand cleaners had numerous complaints on the separation of his product during normal shelf-life and use. Since a double-distilled oleic acid was a major part of the emulsifier in his formulation, he investigated our claims of superior stability for Emersol 221 Low Titer White Elaine.

Prolonged aging tests soon showed that Emersol 221 eliminated the breakdown of his cleaner even over abnormally long storage periods. Furthermore, his product stayed fresh and appealing longer because of its increased resistance to yellowing and rancidity. And since Emersol 221 costs no more than competitive double-distilled oleic acids, this substantially greater "sales-appeal" was achieved at no extra cost.

Whatever products you are producing, they too will possess maximum stability when you use an Emersol Elaine. Because this includes resistance to yellowing, resistance to rancidity, and resistance to breakdown or deterioration, your products will keep that "just-made" appearance substantially longer. And since Emersol Elaines cost no more than competitive grades, why not obtain this valuable competitive advantage by buying all your oleic acid from Emery?

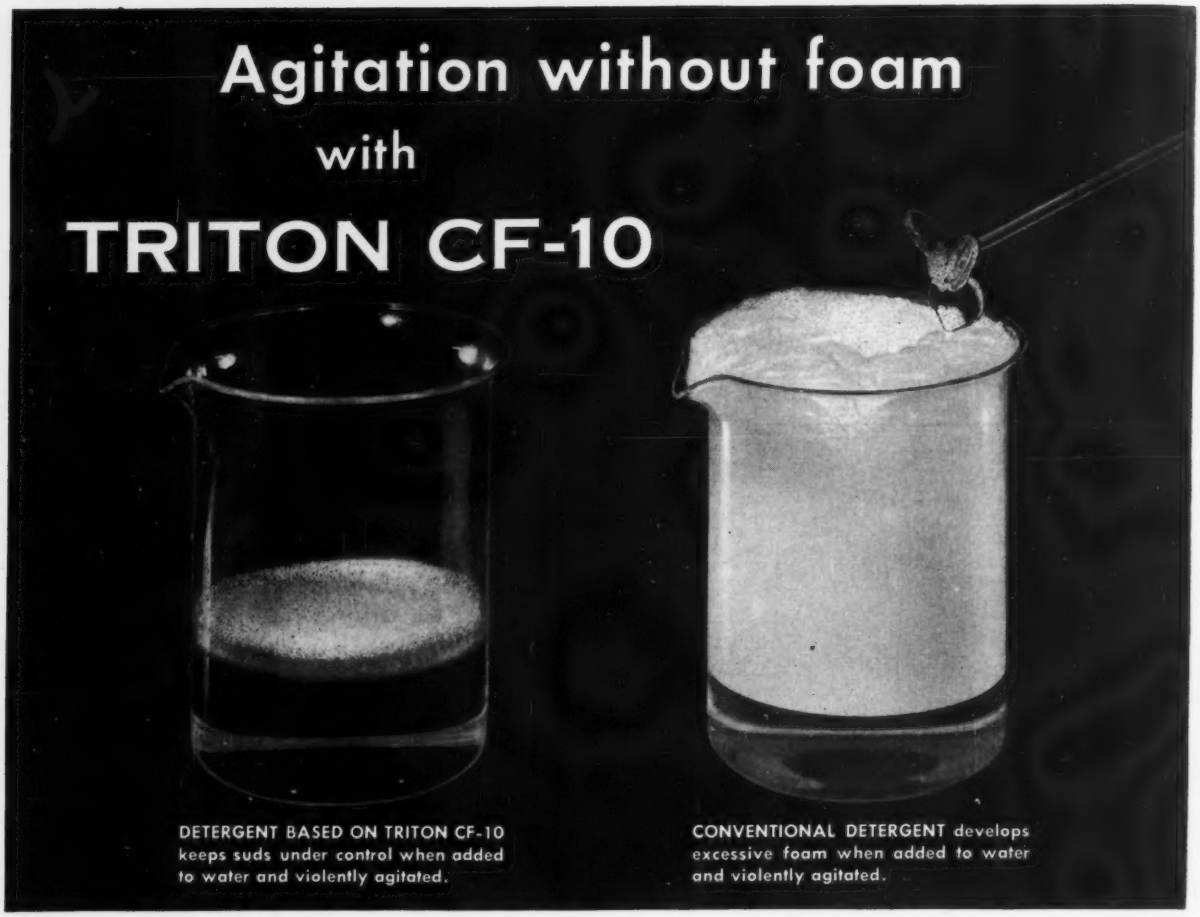
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With its low foaming, high detergency action, TRITON CF-10 can lead to big improvements in automatic dishwashing compounds. It also promises improved performance for laundry, dairy, and metal cleaning compounds.

TRITON CF-10 is available in commercial quantities. For samples or typical formulations, see your Rohm & Haas representative or write direct.

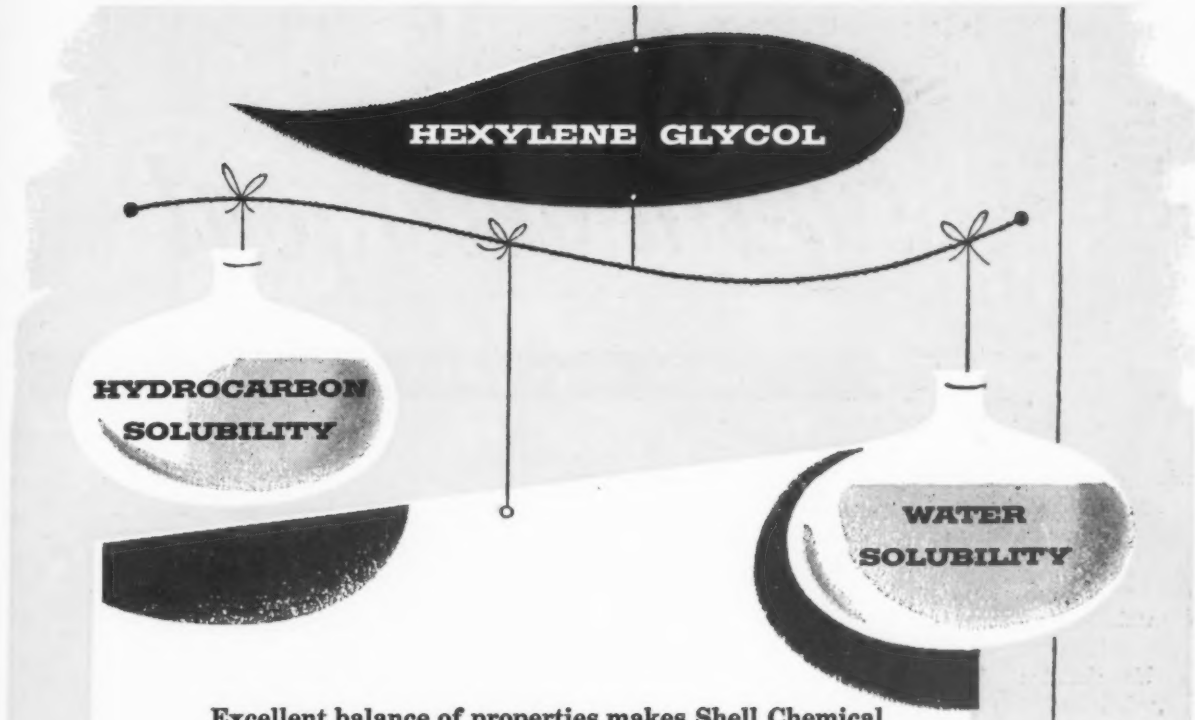
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LDA

A 100% active, fatty acid alkylolamide and nonionic in character. It provides superior foam stability, detergency, and gives good sudsing quality in the presence of grease. LDA is also noted for being a splendid thickening agent, and an auxiliary emulsifier helping to counteract the defatting action of alkyl aryl sulfonates.

B-153

An ethoxylated nonyl phenol sulfate, 60% active. It is a clear amber liquid with a mild, pleasant alcohol odor. B-153 gives a high and closely knit flash foam to liquid dishwashing detergents. It is also a good auxiliary detergent and is relatively mild to the skin.

NP-10

A 100% active ethoxylated nonionic. It imparts excellent grease emulsification to liquid dishwashing detergents and makes possible better drainage, helping to eliminate film. Among its other advantages NP-10 can aid in lowering the cloud point of a liquid detergent formulation.

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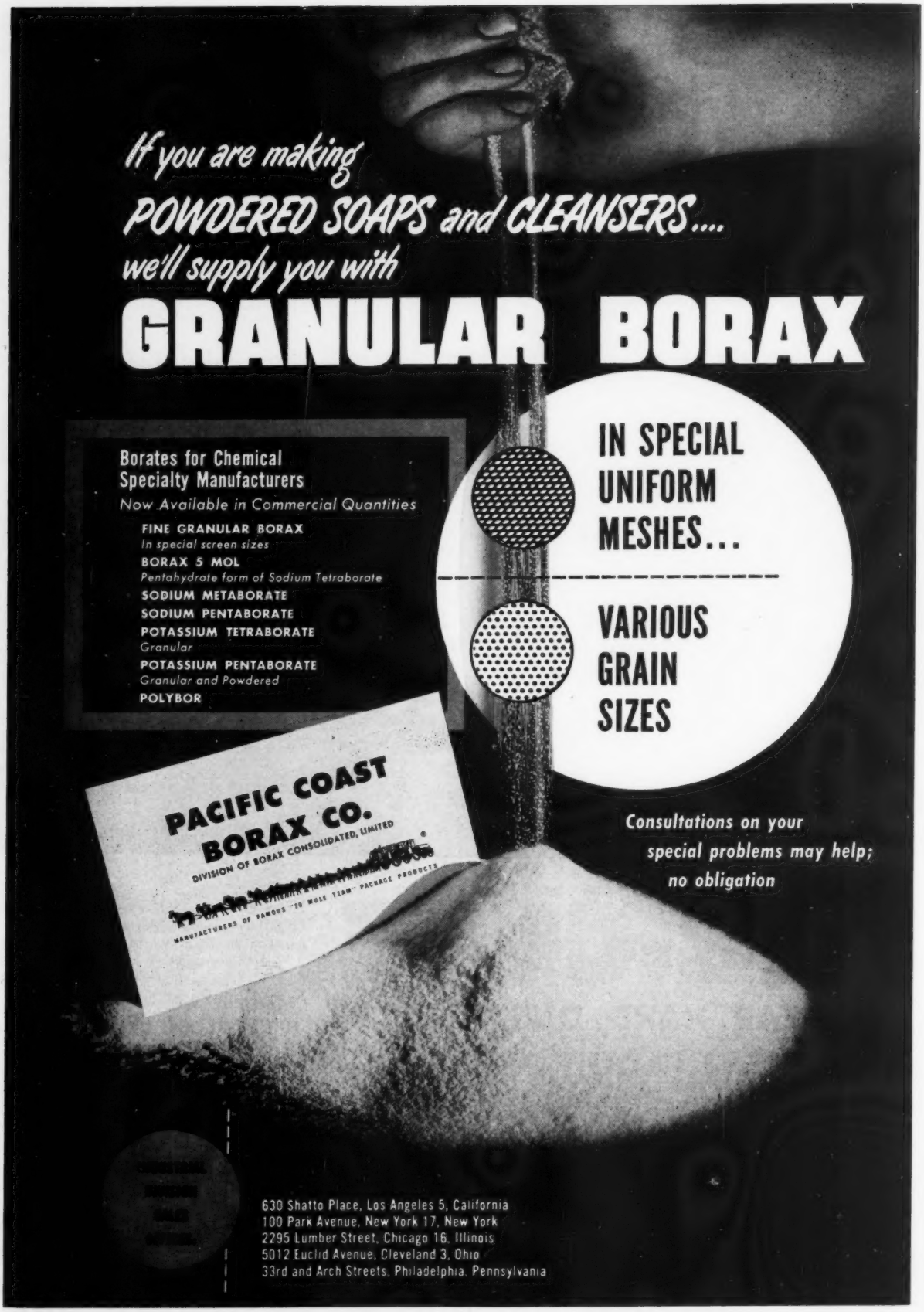
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IVORY BEADS

A medium titer, neutral, white soap of exceptional purity and quality. Well suited for compounding products where a mild but effective soap is required—hand soaps, paints, polishes, dentifrices, protective creams, dishwashing compounds and paper coatings.

Olate FLAKES

A neutral, light colored, thin flake soap with a titer of approximately 12°C. Forms fluid solutions at high concentrations at room temperature. An excellent product for use in the preparation of liquid cleaners, hand soaps, laundry detergents, abrasive cleaners, waterless hand cleaners, protective creams.

ORVUS AB GRANULES

A neutral synthetic detergent, wetting and emulsifying agent of the 40% active sodium alkyl aryl sulfonate type. A light, white, readily soluble free-flowing granule, it can be used effectively in the blending of bubble baths, car washes, dish-washing compounds, dairy cleaners, insecticides, laundry detergents, rug and upholstery cleaners, and general maintenance cleaners.

ORVUS EXTRA GRANULES

A complete multi-purpose synthetic detergent whose active ingredient is mainly sodium alkyl sulfate blended with carefully selected builders to give maximum detergent and sudsing performance. Ideal for use as a bubble bath, car washes, metal cleaners, floor cleaners, dairy cleaners, rug and upholstery shampoos, and general maintenance cleaners.

ORVUS WA PASTE

A neutral synthetic detergent and wetting agent whose active ingredient is mainly sodium alkyl sulfate. Orvus WA has excellent sudsing, wetting, emulsifying, dispersing and penetrating properties which are well suited for paste and liquid shampoos, bubble baths, liquid detergents, liquid car washes, emulsifiable solvent cleaners, liquid floor cleaners, insecticides, glass cleaners, rug and upholstery cleaners and for many other liquid cleaners.

ORVUS ES PASTE

A specially developed synthetic detergent whose active ingredient is mainly modified alkyl sulfate. Offers exceptional efficiency and stability over a wide range of operating conditions. The product's detergent, wetting, penetrating, sudsing, dispersing, and emulsifying properties make it excellent for the preparation of liquid shampoos, bubble baths, liquid detergents, liquid floor cleaners, insecticides, car washes, emulsion cleaners, and a wide variety of other liquid products.

Kyro EO

A neutral nonionic synthetic detergent of the 100% alkylphenol ethylene oxide condensate type. A light colored liquid with a clean pleasant odor. Its superior detergent, wetting and emulsifying properties, plus its compatability with a wide variety of other products, offer excellent performance in liquid detergents, sanitizer detergents, self emulsifying solvents, automatic laundry detergents, glass cleaners, insecticides, textile cleaners, dairy cleaners, and bottle washing compounds.

Our Products Research Department will be happy to supply you with additional information about any of these products as well as technical help in connection with their effective use.

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LIQUID – Iron free, a clear water-white solution of 45-50%. In tank cars and in returnable and non-returnable 675 lb. drums.

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– all standard grades –

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...about detergents

SOAPS AND DETERGENTS

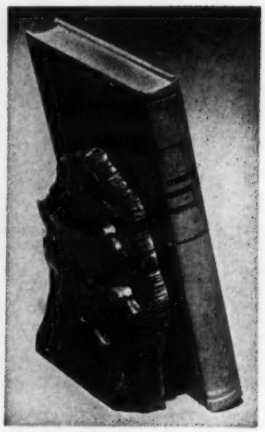
by E. G. Thomsen and John W. McCutcheon



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by John W. McCutcheon



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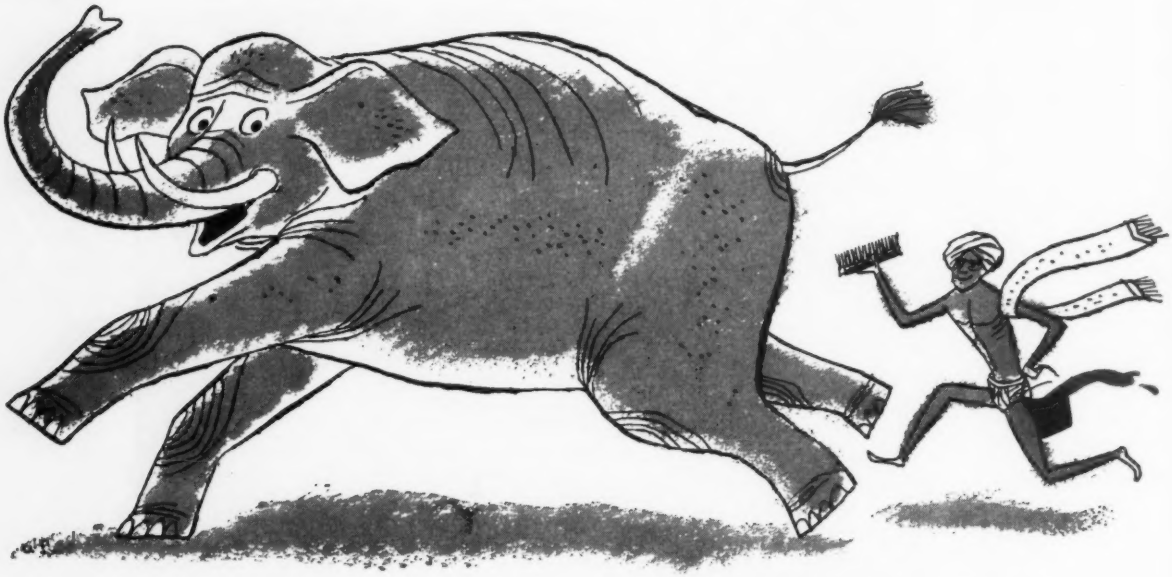
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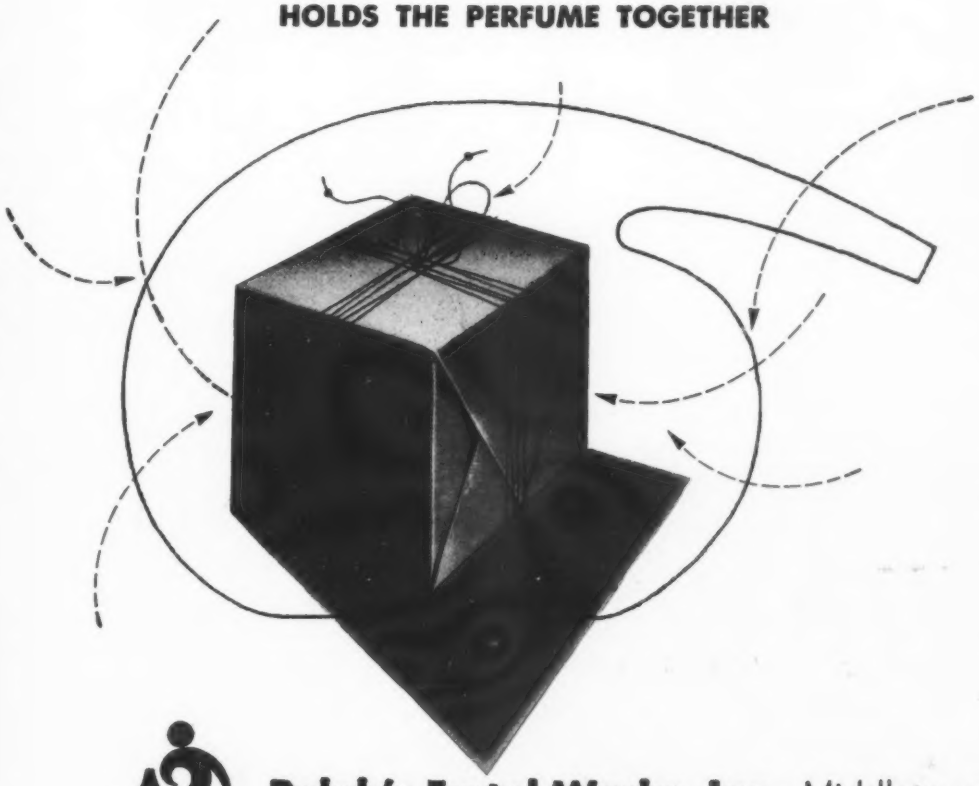
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Completion of this plant will mark the entry of GAF in the field of heavy chemicals. The same high caliber of technical and manufacturing know-how that made the company foremost in the fields of dyestuffs and surfactants will be employed in the production of caûstic potash. Your inquiries will be welcomed.

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SUPER CLEANING POWER! SAFE for any surface! Non-toxic! Non-irritating! 100% wetting action! Ideal opalescence! Popular cedar-leaf scent! Suspends dirt!

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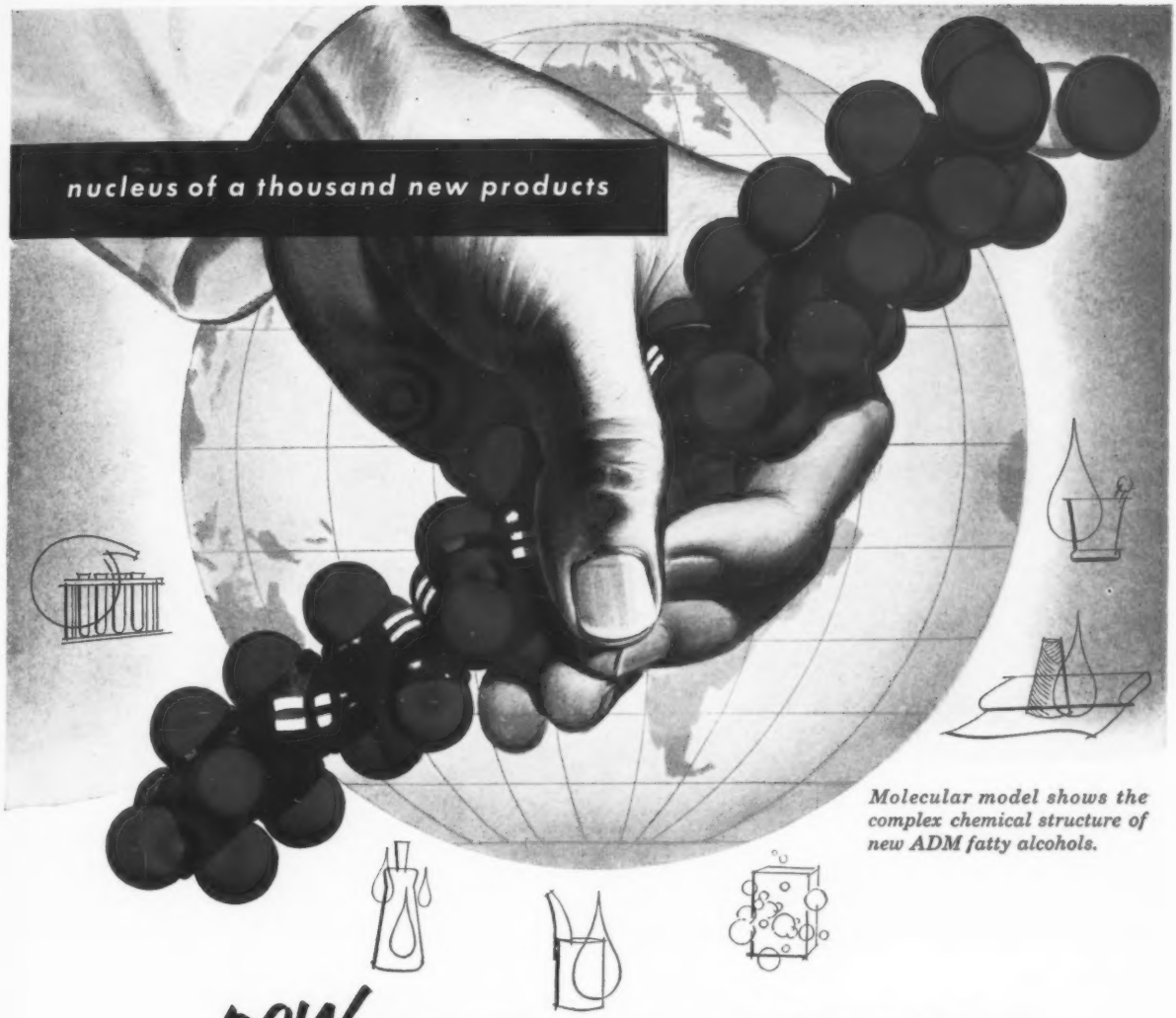
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Here's something to stir the minds of research chemists . . . new saturated and unsaturated fatty alcohols in tank-car and carload quantities from ADM's ultra-modern Ashtabula, Ohio, plant.

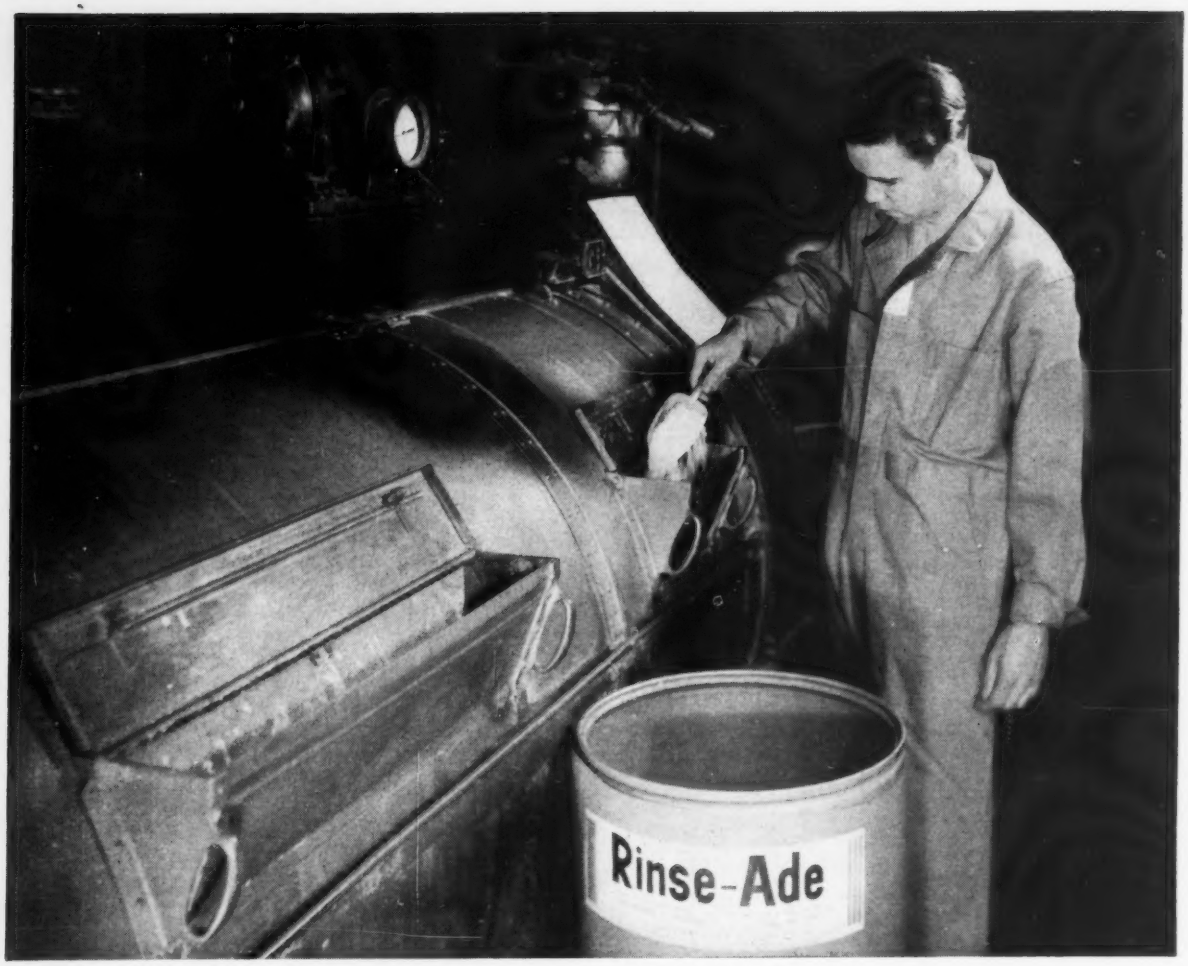
These latest ADOLS and UNADOLS have a complex chemical structure. They have improved properties and higher purity. And, most important to you, they have the potential to impart advantages to the products you make—textiles, plastics, lubricating oils and greases, detergents and many others.

ADM does not consume these Chemifats. These new chemicals are developed for *you*. What can *you* do with them?

Write for samples of these new fatty alcohols: *Saturated alcohols*—Lauryl, Cetyl, Stearyl, Cetyl-Stearyl, Arachidyl-Behenyl, Behenyl and 1, 12 Hydroxy Stearyl; *Unsaturated alcohols*—Stearyl Oleyl, Oleyl, Linoleyl, Linolenyl, Arachidonyl-Clupanodonyl, Erucyl and Ricinoleyl.

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in Commercial Laundry Preparations
THE KEY IS CMC

Commercial laundry preparations, as well as detergents and soap for home use, get clothes whiter, faster when they include Hercules® CMC in the formulation.

The exceptional soil-suspending properties of CMC insure that dirt particles go down the drain with the rinse water and are never redeposited on the clothes. And CMC-based preparations are economical to use. For example, directions for the use of "Rinse-Ade" call for only 6 ounces per 100 pounds of clothes.

Commercial laundries and leading manufacturers of cleaning agents everywhere are discovering the advantages of economical CMC. Prove for yourself what CMC can do. Technical information and a testing sample are available on request.

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HERCULES POWDER COMPANY
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VC55-8

. . . in brief

as the editor sees it . . .

LESS SUDS . . . . In the soap industry, like in any other, they tell us, we have trends. One bloke starts something and that sets up a trend. Others follow. Now, it seems that just at the moment, there is a trend toward less suds in sudsing detergents, soaps, *et al.* Where the washtub or dishpan used to be filled to overflowing with fleecy white foam, manufacturers are now cutting down on the sudsing characteristics. They are giving Mrs. McGuff "controlled sudsing." This gives her a little suds, but not too much.

Just what brought about this latest trend is not definitely known although we suspect that it could be the influence of the non-sudsing detergents, or maybe the desire of some marketers to make their sudsing detergents suitable for automatic kitchen equipment without running all over the floor. Maybe the sewer people got after the soapers. This, however, we doubt. We still feel that the boys have been giving Mrs. McGuff just a little too much foam in her dishpan and her screams have been heard.

* * * * * *

TEN YEARS . . . . This year, aerosols completed their first decade as commercial products. From strictly a war baby, they have mushroomed into big business. Close to 250,000,000 units will be filled and marketed this year. Starting as a war-time insecticide, used exclusively during the war years by the armed forces, the aerosol package has expanded its horizons to where there are over a half-hundred different uses today. Hardly a week goes by when there are not several new ideas in pressure packaging brought to market.

In its short history, the aerosol industry has had the usual growing pains. Several pioneers in the field dropped out early, convinced that the pressure package would never amount to much marketwise. Just a flash in the pan. Many who stayed with the business have done well. There has been the usual percentage of fly-by-nights, mostly short lived. There have been headaches galore. But withal, the market has grown faster than anything we have viewed in the past thirty years.

As to the future, we look for a lessening of the rate of expansion, a leveling at present figures or slightly higher. We look for a shake-out of some units in the business, mostly those lacking the necessary experience and background. We look for a consolidation of present gains in better containers, better valves, better products—and a stronger, solid industry.

* * * * * *

PACKAGING . . . . What with new cans for detergents, plastic bottles and aerosols, new cartons with carrying handles, unit packages for bar soap like the beer cans have, glass aerosols, and other things for the household market, we could be having a revolution in packaging of chemical specialties, soaps and detergents without hardly knowing it. Then we note the late improvement in industrial packages, the wide swing to lithographed and silk screen drums and cans, to better looking containers for all products, and we're convinced that a new era in packaging in this field is upon us.

In the household small-package field, the impact of the supermarket on packaging has undoubtedly been great. It has forced a revolution in package design. But in the industrial field, it's less easy to place a finger on. Maybe it's pride; maybe marketers have demanded bet-

Sodium Polyphos
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(SODIUM TETRAPHOSPHATE)

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ter packages from manufacturers. But no matter what it is, the big change is here. And, among others, we will be very happy to see some of those crummy old bulk packages pass forever from the scene.

* * * * * *

SURVEYS . . . . Slowly we come to the conclusion that surveys are strictly for the birds. Lately, we have seen so much rubbish come out of alleged surveys, that we are skeptical of all of them. Also, we conclude, tell a survey outfit what you want to find out, what you want to prove, and they will go out and dig up the figures to prove it. Anything at all. Just tell 'em what you want and presto you have it.

So many phoney surveys have been foisted on the public and on industry, we doubt that anybody can blame us for viewing the whole "survey" racket with a fishy eye. To us it's a case of too many companies with too much money to waste—so let's survey something, anything. Let's spend some dough.

Recently, one of our big-time magazines did a large survey to show that almost all its readers were top executives. Obviously a fraud, the Advertising Research Foundation took it apart piece by piece and tabbed it for what it was worth. But still they go on and on, surveys here, surveys there, surveys everywhere. We are being surveyed to death, almost always by somebody with an ax to grind. And as we said, it looks like too many companies have too much money to waste. Maybe nothing short of another depression will subdue the racket.

* * * * * *

MUDDLED . . . . Standards for industrial products, particularly chemical specialties, are really becoming muddled. One testing group wants performance standards; others want something else. For the manufacturer who wants to sell his products to the industrial buyer, it's all becoming very complicated. With several standards, testing and consumer associations all crowding into the act, the manufacturer hardly knows where he stands. Nor is his confusion liable to grow less as time goes on.

Obviously, the motivating spirit behind all this search for standards is the desire of the industrial purchasing agent to be protected against off-grade merchandise. And it's a perfectly normal desire. So he wants the goods marked that they meet this or that standard. But which standard? And is he willing to pay the price for this added protection? We doubt it. He wants to buy cheaply and get full protection at the same time, as we see it. Maybe the two just don't go together.

In our book, product brand is the best protection of any buyer, industrial, household and what not. But too many industrial buyers don't want to pay the price for an accepted brand. So they feel a standard designation on the package is a good substitute. Maybe a substitute, but it will not be cheap. That we can assure them.

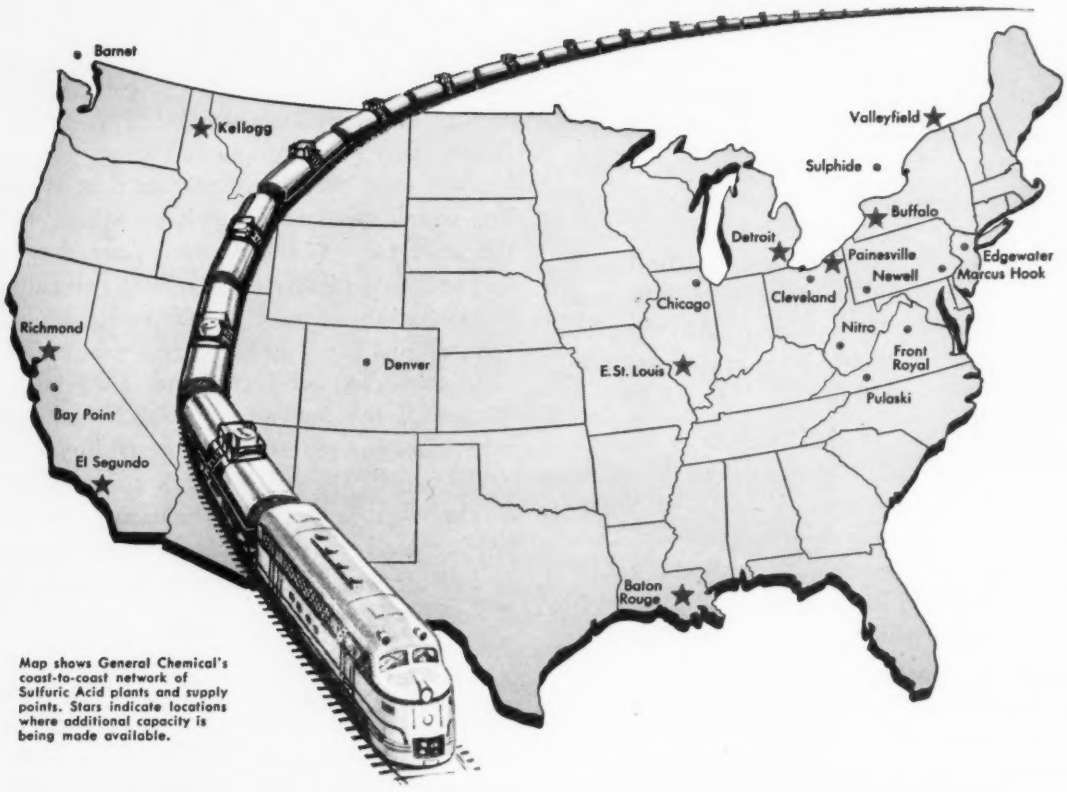
* * * * * *

TALLOW HIGH . . . . After bumping the highest point it has reached in the past several years earlier this month, tallow prices declined slightly in late November. Earlier it had reached 9⅜ cents for the extra grade, with 7½ cents bid for yellow grease in tank cars.

Soapers waiting for the seasonal decline in tallow prices are still waiting. All of which puts additional pressure on prices that have been pushed up by heavy foreign buying. A safety valve, of course, is the use of tallow in cattle feed. When prices move up to their present levels and higher, the use of tallow in feed is cut off by the economics of the situation.

Tallow and fatty acids are feeling the effects of a general tendency to increase raw material prices, which must be reflected in finished products. All of which is a real headache for the soaper who is competing with the synthetic detergents for consumer favor.

An 80-Mile Train of New Sulfuric Acid Production!



Map shows General Chemical's coast-to-coast network of Sulfuric Acid plants and supply points. Stars indicate locations where additional capacity is being made available.

General Chemical Expands Capacity from Coast to Coast!

In an expansion that extends to all points of the compass, General Chemical is providing an additional 600,000 tons of Sulfuric Acid annually, with increased production facilities . . .

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★ **North** at Valleyfield, Que.*
★ **East** at Buffalo, New York
★ **In the Mid-west** at Detroit, Mich., Painesville, Ohio and E. St. Louis, Ill.

This means approximately 12,000 more tank cars of Sulfuric Acid available to meet growing requirements of industry . . . a train load 80 miles long! Some of these new facilities are already in production, and the others are scheduled for completion in 1956.

As America's foremost producer of Sulfuric Acid, General Chemical recognizes a responsibility to keep pace with industry's need for this vital basic chemical. No matter where you are located, you are within a short, low-cost haul of a primary producing center of General Chemical Sulfuric Acid. Remember . . . in emergencies and at all times . . . General Chemical is your dependable source of Sulfuric.

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as the reader sees it...

Alox Independent

Editor:

In the October issue of *Soap & Chemical Specialties*, there is a reference on page 191 to the Alox Corporation. We appreciate the advantages of a free listing in your magazine, but a listing which is inaccurate is of dubious value.

At no time has the Alox Corporation been a subsidiary of the Surpass Petrochemicals Company of Canada. Over a year and a half ago, the Surpass Petrochemicals Company purchased a minor block of Alox Corporation common stock. However, their purchase did not, and still does not constitute a controlling interest. While there is a close and friendly relationship between the companies, they are both separate and independent entities.

The same error was made by a number of other publications a year and a half ago, but they soon issued corrections. We would, therefore, appreciate learning your source of information so that we may take steps to see that further dissemination of inaccurate information concerning Alox Corporation is stopped.

Clarence A. Weltman,
Executive vice-president
Alox Corporation,
Niagara Falls, N. Y.

The error to which Mr. Weltman refers appeared in the list of names of the manufacturers whose products are included in the listing of "Synthetic Detergents and Emulsifiers Up-to-Date" by John W. McCutcheon. We regret the error and any embarrassment it may have caused Alox. In reprinting the listing, we shall avoid repeating the mistake. Ed.

— ★ —

"Gross Errors . . ."

Editor:

I have just finished reading the paper, "'Radioactive Method to Determine Wearing Qualities of Waxes," by Haworth, Koch and Surak in the October issue of *Soap and Chemical Specialties.*

Many of the papers that I have read in your journal have been of high quality and I, therefore, was quite surprised to read this article which has a large number of gross errors and inaccuracies.

(1) Carbon is not made radioactive by neutron bombardment in a reactor.

(2) C_{14} does not decay by alpha emission. It emits beta particles only.

(3) C_{14} is easily handled by trained personnel and health hazards are minimal, much less than with CO-60.

(4) The inverse square law does not hold for B-radiation such as emitted by C_{14}

(5) The definition of millicurie is wrong.

I think you would be wise to submit this paper to someone skilled in working with isotopes.

Morris Goldberg,
Director, Isotope Div.
York Research Corp.,
Stamford, Conn.

We are sending these corrections along to the authors for possible correction, if necessary, in a future issue. Possibly some of the errors were caught by the authors on corrected galley proofs which they returned. Unfortunately, the galley proofs were received too late for the corrections to be included in the October issue. The changes are included in reprints which are now available. Ed.

— ★ —

The Bite Hurts

Editor:

I want to commend you on the editorial in *Soap & Chemical Specialties* a few issues ago in which you commented on trade shows sponsored by sanitary supply jobbers.

However, there is another form of "pressuring" to which manufacturers selling the sanitary supply industry are subjected. This has become widespread during the past year or so. This is the ever-increasing demands for cash donations.

For what? you ask.

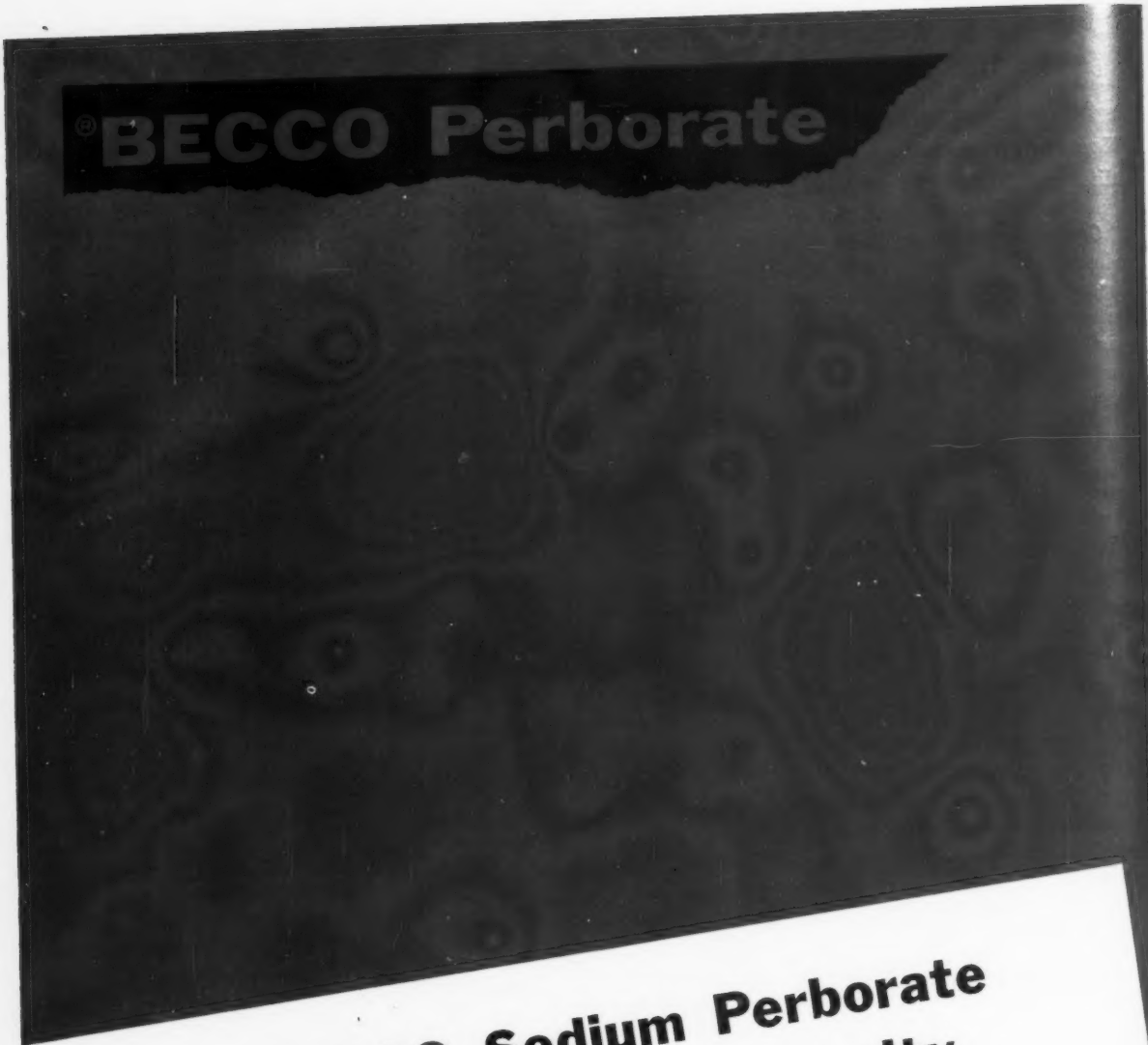
Well . . . one jobber says he is compiling a new catalog. He has figured the various costs of producing such a catalog very carefully. And from the total cost he has plucked a nice round figure which represents the sum that our company is obliged to donate.

Another jobber tells us he is planning to publish a magazine of his own; I guess you would call it a "house organ." It is a bi-monthly. His "rates" for a full page: $100. And he is confident that we can be counted on for that sum six times a year. We realize it is only $600, but his total business in the course of a year with us is considerably less than this sum.

A jobber is changing the

(*Turn to Page* 269)





Use BECCO Sodium Perborate for its exceptional uniformity

Becco is manufacturing Sodium Perborate Tetrahydrate by a continuous process which gives a remarkably uniform product. The individual particles are substantially all single crystals with reduced crumbling and dusting characteristics.

Becco Sodium Perborate is widely used for dye development and in the manufacture of powder bleaches, cosmetics, etc.

Characteristics of Becco Sodium Perborate Tetrahydrate:

Sodium Perborate Tetrahydrate	—96.2% by weight, minimum
Active Oxygen	—10% by weight, minimum
Solubility in Water at 25°C	—3.4 g/100g
Form	—White crystalline powder
Stability	—Substantially no loss under ordinary storage conditions

Write for Bulletin 45, "Becco Sodium Perborate", or for Becco's complete list of bulletins on the uses of peroxygen chemicals.

BECCO CHEMICAL DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION
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The Story of GLIM

WHEN a chemical manufacturer surveys the potential outlets for his products, the consumer market in comparison with the industrial market often looks like a mountain beside a mole hill. This is especially true if the chemical manufacturer is a producer of surfactants. Over 80 percent of all soap and surfactants produced move through retail marketing channels to the consumer. This market is growing steadily in proportion to the increase in population and improvements in the standard of living.

There are several approaches that a chemical company can use to tap this large and ever growing consumer market:

1. Sell the basic chemical to a marketing company for incorporation into the finished consumer product, which the marketing company will distribute.
2. Produce the finished consumer product and have it distributed through an already established marketing company.
3. Set up its own marketing organization, and then be in a position to control the product from inception to use by the consumer.
4. Purchase a marketing company that already has a consumer franchise.

Any one of these steps may sound simple, but each has its headaches and pitfalls.

DISCUSSING the experience of my company, General Aniline & Film Corp., why did we enter the consumer market with a liquid dishwashing detergent, via our own marketing organization? Before World War II, G A & F's Dye & Chemical Division, manufactured and sold dyes primarily to the textile industry, as well as a few chemi-

By Harold G. Shelton
Sales Manager, Antara Chemicals
A sales division of General Aniline & Film Corp.,
New York.

cals, which were sold as dye auxiliaries. Because of the desire of our management to extend its chemical business to other markets besides the textile industry, we had our laboratory undertake a program of screening the various chemicals we were then manufacturing, for use outside the dye consuming industries. This laboratory evaluation resulted in our discovering that one of the surfactants we were manufacturing was far superior to any other we produced, or to any product then on the market, for washing hard surfaces, especially dishes and glassware. Unfortunately, it was a liquid nonionic type surfactant which is not easily converted to powder, flake or bar form. But the laboratory results were so outstanding that some real effort was called for to determine the best way to capitalize on this asset.

In March 1945, I joined GAF, and the Antara Chemical Division was set up for the purpose of developing new uses and outlets for the chemicals then being manufactured by GAF. As the surfactant for washing hard surfaces was the most outstanding performer on which we had data, we tackled this project first.

The major soap companies were contacted, as well as some of the smaller ones. They were furnished samples and copies of our laboratory report. The result, a cold shoulder . . . Answer: No interest, for the housewife could not be sold a liquid detergent. It had been tried for years, with liquid soap and cleaners, all of which had failed.

To go further called for considerable market research and study, to decide whether we should forget the whole thing, or try to prove our laboratory results. We decided on going ahead and, in June 1945, we hired our first market researcher and set up a market research department to work on the many studies that had to be made.

Next, with the help of our advertising agent and with George Gallup as consultant, we conducted a nationwide consumer survey among 3,000 housewives, testing our liquid then called "D-One," against the products they were then using. The results of this test would probably have made any chemical company go overboard. Better than 80 percent of the housewives tested preferred "D-One" over anything they had ever used. Many wrote enthusiastic letters asking when and where they could buy this product. I well remember George Gallup's comment when I reviewed the consumer test results with him: "Discount your consumer test result by 20 percent and you still have a result that any merchandising company would be tickled to death with."

More Market Research

NOW we were in a bigger quandry than ever. Should we go back to the big soap companies with our consumer survey results, or should we go further on our own? Market research seemed essential and an extensive market study was undertaken to determine some of the following information before attempting to answer the question.

1. How the large soap companies operated, with particular emphasis on their merchandising methods;
2. How new products were introduced in the consumer market;
3. Methods of distribution, cost, mark-up, etc., in the consumer soap market;
4. Advertising and promotion requirements commonly used during the introduction of new products, and later to sustain them.
5. Chances of success if we built a consumer organization and went it on our own.

This market study was probably the most important of all the studies we made for it resulted in our final plan which was evolved and carried through, to completion over the next three years. This study pointed up a number of facts and conclusions, some of which were as follows:

1. Liquid detergents, regardless of how good, were virtually unknown to housewives. Synthetic detergents, as such were practically unknown, as "Vel," "Dreft" and "Swerl" were about the only synthetics then on the market, and had been offered only in hard water areas.
2. To sell a liquid detergent successfully to the consumer would require advertising and promotion expense, as the housewife not only had to be educated to a new product, but her life-long habits in dishwashing had to be changed.
3. Our company should set up a new consumer marketing division completely independent of the rest of the sales and marketing groups, to introduce and market our liquid detergent, in limited areas.
4. In the beginning all sales and distribution should be handled through our own men and not through jobbers or food brokers. This was necessary in order to be flexible and better measure results.
5. In selecting test cities for the initial market test, we should choose those that could become hubs for further market expansion.
6. That we would never be able to support a national sales and marketing organization with only one consumer product. This meant one of three things:
   a. We would have to be prepared to sell whatever franchise we were able to establish at a later date.
   b. We would have to develop a number of additional consumer items that could be added to our line in order to support the sales organization we would be required to build.
   c. We would have to purchase or acquire a national marketing company that was established and self-sustaining.

With the above conclusions reached, we opened our first two test markets in April, 1954; one in York, Pa., (soft water) and one in Kalamazoo, Mich., (hard water).

Over the next two years we built our field sales force to 45 men, opened up one area after another, and expanded our market to 1/10th of the United States population. Every new district opened was a test market as we tried out every known method for introducing a product such as:

1. Free samples—door-to-door;
2. Coupons for a free bottle;
3. Heavy publicity, telling of the miracle product, a week before the product appeared on the store shelves;
4. Two-for-price-of-one sales;
5. Store demonstrations and sales by a crew of beautiful girls, some of whom had probably never seen a dishpan before;
6. Product guaranteed to be the best product ever used for washing dishes, or twice the cost of the bottle would be paid upon return of the unused portion.

All of these introductory steps were checked for results by means of house-to-house surveys and regular store-movement checks. For instance, house-to-house surveys of some 300 women in York and Kalamazoo, during the fall of 1947, showed 48 percent and 44 percent of the housewives, respectively, were using our liquid detergent for washing dishes. We knew of course that these figures were heavily weighted, as the soaps then on the market were still of wartime quality and the large soap companies had only begun to expand in the direction of synthetics.

By the last half of 1947, it began to appear that we had reached our goal. Our liquid detergent was being accepted by the housewife for washing dishes and actually preferred over powder and bar soap by a good percentage. Some 60 small companies across the country had introduced a liquid dishwashing detergent locally, in an effort to capitalize on the success of our product. The major soap companies were following our progress closely, counteracting our promotions whenever possible. We were being approached by several large marketing companies in an effort to determine our long-range plans and to feel us out on our willingness to sell the business.

The time had now come for some very definite decisions. Our market research department with the help of sales developed a three-year program along with a budget required to put our operation on a national basis. This program was compared with another, which called for selling the operation and concentrating on the manufacture and sale of bulk chemicals to the converter and marketing companies. In March, 1948, we reached the decision to sell the marketing operation, trade name, and goodwill connected with the liquid dishwashing detergent business, and concentrate our efforts on the sale of bulk chemicals. On August 1, 1948, an agreement was signed with B. T. Babbitt, Inc., New York, selling them the business and the trade name "Glim."

Looking back over this experience we realize it was a most successful undertaking, for as you know, today a number of companies have entered this still rapidly growing market. According to the most recent report of the Association of American Soap & Glycerine Producers the liquid household detergent market was 69,848,000 pounds in the first half of 1955, with an at-plant value of $33,251,000.

I am sure that much of the success we had in pioneering a new product, which was also a new type of product, can be attributed to our extensive use of market research, from the beginning to the end of our operation, and if I were confronted with the same set of circumstances today, there aren't many things I would change. I would, however, be less confident of success, after experiencing three years of competing against the major soap companies. My hat is off to them for I don't believe they have to take a back seat to any industry when it comes to merchandising and having hard-hitting sales organizations.

Our company, as a basic producer of chemicals is right back where we started supplying bulk chemicals to the finished-product producer, and marketing company. We are back in the industrial chemical business. However, our experience in the retail marketing of a synthetic detergent has vastly improved our position as a chemical supplier for it has broadened our

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About the author

HAROLD GARLAND SHELTON, a native of Holcomb Rock, Va., and a graduate of Virginia Polytechnic Institute (BSEE, 1931) was with various branches of Union Carbide & Carbon Co. from 1931 to 1945. For the two years prior to joining General Aniline & Film Corp., in 1945, he was purchasing agent for the Ashtabula, Ohio, UCC plant. Presently he is sales manager of Antara Chemicals, a sales division of General Aniline & Film Corp.

SOAP



Red Square, Moscow, showing new skyscrapers in upper left, Kremlin wall at extreme right.

Sovfoto

RUSSIA is meeting with little success in its efforts to satisfy soaring consumer demand for soaps, detergents and household chemicals. Soap output is rising erratically. Production this year will be about 50 percent higher than in 1950 if government goals are achieved. Even so, the Soviet press admits that the supply will be far below national needs.

Detergents are still a novelty even in Moscow, which is often well-supplied with consumer goods that are scarce elsewhere in the USSR. Furniture polishes, waxes, spot removers, dry cleaning compounds, disinfectants and insecticides — essential items to every American housewife—are unavailable in many Russian retail stores.

Packaging methods are improving slowly. But the average Russian has never seen an aerosol insect bomb or squeeze-bottle deodorant, much less a can of instant lather for shaving.

Ironically, production of luxury cosmetics, especially skin creams, is increasing faster in this supposedly proletarian nation than the manufacture of everyday necessities like soap. Cosmetics are in particularly great demand among wives of the large and comparatively well-paid class of government executives and industrial managers.

All these creams contain oil extracted from kernels of almond and peach pits.

The 110-year-old Svoboda plant in Moscow which makes about 70 percent of all toilet soap produced in the USSR, has begun manufacture of "fragrant, bright-yellow pine soap for the bath," and spermaceti and lanolin soaps "that makes the skin soft and white." It is developing other new toilet soaps and creams, including a soap for seaside resorts that lathers easily in sea water, creams that tend to prevent wrinkles, and a glycerine face cream called Snow White.

Since almost all Soviet cosmetics and prepared household chemicals are scarce and expensive, Russian women's magazines usually carry columns of advice on how to make the desired items at home. The publication *Soviet Woman,* for example, proclaims the virtues of the cleansing creams "Syurpriz" and "Lanolinovy." But for the vast majority of readers who cannot buy these items at the store, *Soviet Woman* recommends a homemade cleansing cream made by "melting one gram of beeswax and 3.5 grams of spermaceti, mixing with five grams of lanolin and 15 grams of peach oil, and adding 10 grams of distilled water in drops."

For "irritated skins caused by daily application of soap and water," oily emulsions or rich creams such as "Barkhatny" and "Plastika" are suggested. But Russians can make their own out of "0.5 grams of borax, 20 grams of vaseline oil, three grams of paraffin and 10 grams of vaseline."

Home chemistry is also recommended for a large number of other household chores:

"To clean silver and nickelware, first wash the pieces in warm soapsuds, then mix some powdered chalk or toothpowder with liquid ammonia to form a thin paste, and apply with a piece of cottonwool.

MAKING IN SOVIET RUSSIA

By Charles L. Adams

"To keep moths away from rug wall hangings, spread glue on a sheet of paper, then sprinkle naphthalene on it as thickly as possible. When the glue dries, hang the paper on the wall under the rug.

"To drive mosquitoes from a room, sprinkle some camphor on a hot frying pan.

"To polish walnut furniture, mix two tablespoons of olive oil with an equal quantity of red wine. Rub into the furniture and polish quickly, as dust will settle on the surface and spoil the gloss if it is allowed to stay wet. Oak furniture should be polished with a mixture consisting of one glass of warm beer, one teaspoon of granulated sugar and a small quantity of wax."

Prospects Dim

PROSPECTS for sharp increases in Russia's supply of soaps, detergents and household chemicals looked promising in 1953 following the death of Stalin and Premier Malenkov's announcement of a broad program to expand consumer goods production. But with Malenkov's dismissal, the Kremlin reverted to its former emphasis on heavy industry. Funds for construction of additional light industry plant capacity were again severely limited. It was decreed that increases in consumer goods, with a few exceptions, must come from "increased utilization of existing plant capacity."

The Soviet Union has issued few specific figures on soap production and none at all regarding detergents, waxes, polishes, disinfectants, etc. Official government figures place the USSR's 1950 soap production at about 800,000 metric tons. The goal for 1955 (last year of the Fifth Five Year Plan) is 1,200,000 metric tons.

No tonnage figures on Russian soap production have been released since 1950. The government's Central Statistical Board report for 1951 (which gives annual output percentage gains for most important manufactured items) failed to mention soap.

In 1952, soap output was reported to be two percent higher than in 1951. Further gains of 11 percent and 21 percent were announced for 1953 and 1954, respectively. However, in its latest report covering the first half of 1955, the Central Statistical Board said soap production held even with the same 1954 period.

Demand for soap in the USSR would be completely out of hand were it not for the high cost. A 3½-ounce bar of toilet soap, for example, is priced at 29 cents in Moscow stores. Thus, it is in the luxury category for the average Soviet worker, who makes around $150 monthly.

While still astronomical by American standards, the price of good-quality skin soaps, face creams and other toilet items has been considerably reduced in recent years. A cake of "Red Moscow" toilet soap costs less than a third as much as in the immediate post-war period, and the price of "Snowflake" face cream has been cut in half.

Russia and the United States have as little in common with regard to laundry soaps and fabric washing methods as they do in the manufacture and sale of cosmetics and other toilet preparations.

Few Washing Machines

WHEREAS mechanical washers are used almost universally in American homes, only a comparatively small number of well-to-do families in the USSR have bought such machines. Even Russian commercial laundries and the "communal" laundries in large city apartment houses are not well supplied with mechanical washers. Moreover, the machines are frequently out of order for long periods due to faulty construction, lack of experienced repair personnel, and a shortage of spare parts.

Russia did not start quantity production of mechanical washers until after World War II, and as late as 1953 annual output was only 27,000. Goal for 1954 was 110,000 units and for 1955, 296,000 units.

Even if all production plans for mechanical washing machines have been met, the USSR today would have less than half a million units in service for its population of around 210 million.

Furthermore, most Soviet mechanical washers are pint-sized, wringer models with a capacity of one and one-half kilograms (3.3 pounds). Since powdered soaps and detergents are very scarce, Russian washing machine manufacturers recommend that "60 grams of chipped bar soap and 20 grams of washing soda be put into the tub for each kilogram of wash."

Backwardness of Russian laundering methods was emphasized recently in a letter written by five chemist members of the USSR Academy of Sciences to the official government newspaper *Izvestia*. It said: "When one thinks about our present-day washing processes with its rubbing of fabrics in hot water against a washboard—a method almost everyone uses—one is forced to ask what fabric can withstand such a barbarous ordeal. It should be noted that even some of our washing machines do not eliminate, but rather mechanize, the destruction of fabrics during the scrubbing and cleaning process. A large research laboratory for washing

agents and washing processes should be formed within the USSR Academy of Sciences."

Another letter to *Izvestia*, written by O. Sverchkova of Leningrad, declared that Russian household soaps now used in washing machines and on washboards have many faults. "They lather poorly, emit an unpleasant odor, and often leave spots."

Russian newspaper readers have also complained that there are too few public laundries to meet the demand for their services. Ye. Lebedeva wrote *Izvestia* that the city of Astrakhan (with a population exceeding 300,000) "doesn't have a single laundry, and housewives are forced to wash their clothes in the Volga River."

Russian dry cleaning methods are no more advanced than those for laundering. Prepared dry cleaning preparations are not sold for home use, and commercial dry cleaning establishments, where they can be found, are frequently unreliable.

An *Izvestia* reader said that "when a customer buys some material or item of apparel he often has to select dark shades so that the clothing will not show stains. This is because in the vast majority of cases the garment will not be dry cleaned once during its entire existence. There are not enough dry cleaning plants and shops. . . ."

Detergents Scarce

WHILE seemingly little concerned about the inadequate supplies of soap available to consumers, top Russian officials are deeply troubled over the chemical industry's failure to exploit the possibilities of detergents. Use of large quantities of vegetable oils and animal fats to provide raw materials for soap makers instead of using them to increase the population's limited food supply is being criticized.

Premier Nikolai Bulganin, in a recent speech before a plenary session of the Communist Party Central Committee, deplored the chemical industry's failure to make proper use of vegetable and petroleum oil in producing detergents, synthetic rubber, artificial fibers, etc.



The Svoboda soap and cosmetics factory in Moscow, where new and improved types of soap are produced. Woman at right is teaching novice how to operate automatic tube filling machine.

Sovfoto

In immediate response to the premier's speech, the Central Committee adopted a resolution calling on the chemical industry to "increase its use of petroleum products so that they will become the basic raw material for producing detergents." It also demanded that the chemical industry "make the fullest use of various industrial 'wastes' which are cheap raw materials for obtaining synthetic materials, alcohol, rubber, glycerine, pectic glue, cleansing agents, sulphuric acid and other chemicals, in whose manufacture edible grain, potatoes, edible fats, and other valuable products are now being employed."

N. A. Petrov, director of the Technical Administration of the USSR's Ministry of the Food Products Industry, has disclosed that approximately one-third of Russia's vegetable oils supply is still being used in the manufacture of household soap.

This, he pointed out, is no longer necessary, "since modern chemistry has made possible the industrial production of both synthetic substitutes for natural fats used in soap manufacture and synthetic washing agents which are considerably more effective than the soaps now made from fats."

Petrov charged that while the chemical and petroleum ministries are obligated to provide many new types of cheap, high-quality raw materials for soap production "they have as yet not bestirred themselves in this matter." He continued: "Oxidation by oxygen from the air of natural paraffins extracted from petroleum has made it possible to organize large-scale production of synthetic fatty acids which are as good for soap making as the fatty acids obtained from natural fats. For practical purposes, one ton of these synthetic acids replaces one ton of natural fats.

"Latest achievements of chemists at the USSR Academy of Sciences' Petroleum Institute have opened the way for obtaining other

products from petroleum, thus permitting manufacture of such fine, valuable washing agents as the powder "Novelty,' which has already proved its worth.

Petrov said it has been amply demonstrated that modern synthetic washing agents are better than fatty soaps. "They wash well in cold water regardless of its hardness. They are convenient to use since they are usually made in powder form. Consequently, synthetic washing agents are not simply substitutes for fatty soap but a new and improved washing product.

"It is sometimes argued that chemically-synthesized products are expensive. Such is not the case here. A chemical synthesis industry will make it possible to organize large-scale operations, and then production will be cheap.

"An industry for making synthetic washing agents and fat substitutes will also permit the freeing of large quantities of natural fats from soap manufacture for food purposes. Our estimates show, for example, that in order to obtain 300,000 metric tons of sunflower oil for soap manufacture it is necessary to plant more than 1,000,000 hectares (2,471,000 acres) of sunflowers.

"About 100,000 people are required to cultivate this oil crop, not to mention tens of thousands of tractors, combines and other vehicles. In addition, it is necessary to have a number of oil mills to remove the oil from the seeds and a number of plants to convert the sunflower oil into the form needed in soap manufacture."

Petrov declared that Russia must increase its production of vegetable oils every year. But he emphasized that efforts in this direction will be justified only if the vegetable oils are used solely for human consumption.

"In the future, washing products must be made exclusively from synthetics obtained from the large quantities of 'waste' materials available in the petroleum, chemical, by-product coke and other branches of industry."

Petrov Pessimistic

PETROV is not too optimistic over how much cooperation will be forthcoming in achieving goals for increased output of soap substitutes. In the past, he asserted, the petroleum and chemical industries—overwhelmed by defense and other non-consumer orders — have adopted an antagonistic or, at best, passive attitude toward the problem.

"The Ministry of the Food Industry and the Ministry of the Petroleum Industry argued for many years over the need to take immediate steps to develop production of synthetic fat substitutes from products of paraffin oxidation. During these years the food industry has built and opened a large combine for synthetic fatty acids; but the petroleum industry, meanwhile, has avoided its obligations to build plants that should have been completed several years ago.

"At first the Ministry of the Chemical Industry showed considerable initiative and mastered pilot production of one of the best non-fatty synthetic washing agents—sulfanol—using 'waste' products of the petroleum and by-product coke industry. However, a number of years has passed without this method being applied on a large scale. It is unfortunate that the State Planning Committee has not brought pressure to bear on these two ministries to bring about a rapid solution to this matter of national importance."

Agreeing with Petrov that Soviet production of soap, detergents and household chemicals is marked by serious shortcomings, S. Dmitriyev, a senior staff member of the USSR Academy of Sciences, offered suggestions for improving the situation. He called for increased use of saponin and better organization of research on washing products and methods.

"It should be remembered," Dmitriyev declared, "that the natural washing preparation saponin, which has now disappeared and been forgotten, has excellent properties for washing with hard water. All types of fabrics wash well in it.

"Saponin is contained in more than 400 different plants growing in all parts of the USSR. Collection of these plants and the extraction of saponin from them is an extremely simple matter and one within the power of every collective farm. Saponin is especially convenient for use in modern washing machines.

"The Central Union of Con-

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Charging reactor kettle with raw material in Lenaromat aromatic chemical plant.
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Oils and Fats Outlook

By George L. Prichard*

Executive Secretary, National Flaxseed Processors Association and Washington Representative, National Soybean Processors Association.

PROBLEMS facing our oils and fats industries today arise from handling and distribution of plentiful supplies. A new record was set for U. S. production of edible oils and fats in the current crop year, including oil content of any oilseeds exported. It is estimated at nearly 10.4 billion pounds. This compares with a domestic production of nearly 9.6 billion pounds for the 1954-55 crop year and an average of about 8.8 billion pounds for 1949-53. The total supply of edibles for the current crop year is slightly in excess of last year's record unless oil crop production in terms of total oil is lower than the September estimates. A peanut surplus of close to 200 thousand tons of farmers stock peanuts is in prospect from the 1955 crop. Peanut oil production from this surplus tonnage and from culls is estaimated at about 180 million pounds. On October 7, the Department of Agriculture announced that the 1956 national peanut acreage allotment was to be 1,610 thousand acres, the legal minimum permitted.

Per capita consumption of edible oils and fats in the U. S. is extremely inelastic. We may expect it to expand only in line with the population increase. Based upon the estimated production and assuming the same per capita consumption, supplies of edibles for the crop year beginning October 1, 1955 would permit total exports in terms of oil of about 2½ billion pounds without any material change in year end stocks. It is significant that we enter the current crop year with the Commodity Credit Corporation holding very low inventories of oils, fats and oilseeds except for butter and some 90 million pounds of linseed oil to be acquired from toll crush operations.

Domestic production of inedible oils and fats is estimated at a little under 4.2 billion pounds, or approximately the same level as for the crop year just ended. The only significant change in this category is for tung oil. Production from the 1955 crop is unofficially estimated at 3 million pounds or less, compared with 15 million pounds from the 1954 crop and a potential normal production of roughly 50 million pounds. Total domestic consumption of inedibles is expected to remain at about the same levels as for the last crop year. Exports should continue at approximately the same level in total after allowing for the liquidation of the CCC linseed oil inventories for export during the crop year just ended. The major inedible export item is tallow and grease which is expected to continue in 1955-56 at about 1.2 billion pounds.

Tallow and grease particularly rely to a large extent on export demand which has been taking nearly one-half of total production. Domestic consumption of tallow and grease has been materially affected by competition from synthetics which is expected to continue although not to expand at so rapid a rate as in the past. Some tallow and grease is now being used in the production of synthetic detergents. Research looking to expand this usage is continuing at the USDA Eastern Regional Laboratory in Philadelphia. The large domestic supply and relatively stable price will no doubt encourage further usage in this field. Another relatively new and larger use of tallow and grease and for some other fats has been developed in animal and poultry feeds. We can look forward to some further expansion of this usage. Based upon Census reports, the use of tallow and grease in animal feeds is now at an estimated level of about 150 million pounds per annum. (The total quantity of fats reported by Census as used in animal feeds in August was 12,223,000 pounds, of which 10,828,000 pounds was tallow and grease.) Private estimates run much higher, generally between 200 and 250 million pounds per annum. The Department of Agriculture presently has under consideration a research project to conduct a complete survey of the kinds and types of fats used in different kinds of animal feeds. If this project is carried through early next year as planned, the results should provide some factual information by about mid-1956.

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Domestic disappearance of linseed oil has remained relatively constant during the postwar period of tremendous expansion in the economy and population. It has, however, shown some upward trend during the past several months. For the current crop year, domestic disappearance is estimated at about 540 million pounds—slightly over the 525 million pounds last year. A very real need exists for basic research on linseed oil which we hope will result in continued expansion of its domestic use. The Department of Agriculture has recently commenced work at its Peoria Laboratory to determine the specific glyceride composition of linseed oil. It is hoped funds may be made available to expand materially this and other much needed basic research during the fiscal year beginning next July 1st.

World production for 1955 is now estimated at approximately 26½ million metric tons of all oils and fats. This exceeds 1954 production by perhaps 300 to 400 thousand tons. The world supply of oils and fats will likely continue per capita consumption at near prewar levels. Per capita consumption in under-developed areas has been increased sharply as domestic production in such areas permits. In most other areas of the world, it is about or slightly below prewar.

Price supports for 1955 oilseed crops were reduced from 1954 levels. Cottonseed is being supported at $46 per ton basis grade FOB gin; flaxseed at $3.19 per bushel Minneapolis basis and soybeans at a national average of $2.04 per bushel. The method of carrying out price support for oilseeds was changed by eliminating the so-called cottonseed package program. The Department of Agriculture announced June 2 that no action would be necessary to support the price of 1955 crop cottonseed other than producer loans and purchase agreements. This decision was apparently based upon a forecast of market prices by the Department which so far has proven correct for both cottonseed and soybeans except for a period when soybean prices were under the announced support level. Important factors have been (1) the delayed harvest of a smaller soybean crop than the 420 million bushels originally estimated; (2) liquidation of Government-held inventories in the United States, United Kingdom and the Netherlands; (3) lack of export supplies from the Argentine which now has a deficit and requires imports from other areas; and (4) possible increase in demand from areas behind the Iron Curtain where a potential demand exists until production is established. Should prices decline below support levels, particularly for cottonseed, the Department of Agriculture might find it necessary to implement the announced programs in some manner to insure producers receiving at least price support.

Table 1.—Edible Fats and Oils: Supply and Disposition, Crop Years Beginning October 1, 1949-53 Average, 1954 (Partly Estimated) and Estimated 1955 (In Million Pounds, Fat Content)[1]

	1949-53 Average	October 1954 September 1955	October 1955 September 1956
Beginning Stocks — Total	799.5	1,509.6	667.0
Production—			
Butter (Fat Content) [2]	1,254.9	1,256.0	1,240.0
Lard (Incl. non-inspected and farm) [2]	2,624.9	2,625.0	2,825.0
Cottonseed Oil	1,737.0	1,725.0	1,650.0
Soybean Oil [3]	2,614.4	3,410.0	3,960.0
Peanut Oil [3]	150.6	20.0	180.0
Corn Oil	243.4	260.0	260.0
Edible Tallow [4]	194.4	260.0	260.0
Olive Oil	3.3	3.2	3.0
Total	8,822.9	9,559.2	10,378.0
Imports			
Butter (Fat Content)	.2	.8	—
Lard	1.4	—	—
Peanut Oil	.3	30.0	—
Edible Tallow	.1	.1	—
Olive Oil	52.1	50.0	50.0
Total	54.1	80.9	50.0
Total Supply	9,676.5	11,149.7	11,180.0
Total Exports [3] [5]	1,298.1	2,355.4	
Domestic Disappearance	7,374.6	8,127.3	8,200.0
Per Capita Disappearance	43.6	45.0	45.0
Ending Stocks	1,003.8	[6] 667.0	

[1] Basic data supplied from reports from the Bureau of the Census.
[2] Source: Butter and Farm Lard, U. S. Department of Agriculture.
[3] Includes oil equivalent of oilseeds exported.
[4] Includes oleo oil, oleo stearine and oleo stock.
[5] Includes shipments by private relief agencies.
[6] Includes 100 million pounds of cottonseed oil sold by CCC for export but not shipped by October 1, 1955.

For the past several years, the Department of Agriculture has supported prices for cottonseed and soybeans by taking over the edible oil surplus in the form of cottonoil. This, in turn, gave a measure of indirect support to other oils and fats, particularly lard. For 1955, some recommendations, including one by the National Soybean Processors Association, have been made to the Department of Agriculture that the oilseed price support programs be implemented by an offer from Commodity Credit Corporation to purchase vegetable oils at specified prices from crushers who pay not less than the support prices to producers.

We would like to review briefly the reasons why an oil purchase program appears desirable. First, it should be emphasized that the proposal to buy oil was not advanced as a solution to any or all of the problems of the soybean processing industry. However, it is obvious, that inasmuch as such a program might expand the domes-

tic production of soybeans it would be advantageous to soybean processors and others by making larger supplies available. The recommendation that CCC purchase oil was made primarily on the basis that the best and most economical means of handling the surplus production, which is oil, is to handle it as such. If market prices should decline below support levels, we certainly do not wish to see the price of both cottonseed and soybeans supported by the impounding of large quantitis of soybeans under Government loans.

The farm income situation which has been receiving considerable publicity and likely will, no doubt, receive more, is a matter of concern to all. It seems obvious that one of the best ways to increase farm income and, at the same time reduce Government losses, is to encourage production of those items which are least in surplus. Soybeans by weight are about 80 percent protein feed which is eventually consumed on the farms. An expanding market at reasonable price levels exists in the United States for protein feeds. Some of the experts in the Department of Agriculture estimate that the United States could absorb an additional 7 or 8 million tons of protein feed with proper feeding ratios. Thus it appears that a further substantial increase in soybeans production would be reasonable as well as desirable. There have been healthy increases in soybean production in the past, and on each occasion farmers had ample opportunity to market their soybeans well above price support levels. In this connection, it should be noted that in 1955 farmers over-planted their corn acreage allotments by some 6 million acres. All, or a large part of this acreage diverted to soybean production would result in a better balance of corn supplies with increased farm income and lower losses to the Government. Acreage for soybeans is also available from other crops which should and likely will be reduced. Some of the oil content of such an increased production would be needed to offset expected decreases in cottonoil production as cotton acreage is reduced as well as to meet the needs of the expanding population. The needs of the expanding population require about 100 million pounds additional each year. The remainder would add to any current edible oil surplus moving into export channels.

While world price levels are lower than domestic price support levels, no loss to CCC would be involved by an agreement to purchase oil. To the extent, however, that world market levels are lower than domestic price support levels, a loss to the Government would be involved. Assuming a loss of 2c per pound on the surplus oil production the cost to the Government would be only about $4.00 per acre

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Table 2—Inedible Fats and Oils: Supply and Disposition, Crop Year Beginning October 1954 (Partly Estimated) and Estimated 1955-56 (In Million Pounds, Fat Content)[1]

Item	October 1954 September 1955	Estimated October 1955 September 1956
Beginning Stocks—Total	844.8	763.5
Production		
Tallow and Grease [2]	2,725.0	2,725.0
Linseed Oil [3]	828.0	820.0
Tung Oil	15.4	3.0
Castor Oil	2.7	1.0
Fish Oil	150.0	150.0
Tall Oil	450.0	450.0
All Others [4]	6.2	10.0
Total	4,177.3	4,159.0
Imports		
Tallow and Grease	4.6	5.0
Coconut Oil [5]	575.0	560.0
Palm Oil	62.0	60.0
Tung Oil	26.0	25.0
Castor Oil [5]	145.0	145.0
Oiticica Oil	8.6	8.0
Fish Oil	5.2	5.0
All Others [5]	161.0	125.0
Total	987.4	933.0
Total Supply	6,009.5	5,855.5
Exports (Selected Items)		
Tallow and Grease	1,225.0	1,200.0
Linseed Oil [6]	398.0	240.0
Fish Oil	106.0	120.0
Tall Oil	64.0	60.0
Total	1,821.5	1,644.0
Domestic Disappearance		
Tallow and Grease	1,500.0	1,500.0
Coconut Oil	550.0	550.0
Palm Oil	70.0	65.0
Linseed Oil	525.0	540.0
Tung Oil	50.0	50.0
Castor Oil	135.0	135.0
Oiticica Oil	9.5	8.0
Fish Oil	60.0	50.0
Tall Oil	385.0	385.0
All Others	140.0	140.0
Total	3,424.5	3,423.0

[1] Basic data compiled from reports from the Bureau of the Census.
[2] Apparent production calculated from stocks, domestic consumption and foreign trade data published by the Bureau of the Census.
[3] Production includes oil equivalent of flaxseed exported.
[4] Production represents total production less oil equivalent of net amount of seed imported which is included in imports.
[5] Imports of oil plus production from imported material.
[6] Includes oil equivalent of flaxseed exported.



John T. Stanley, founder

John T. Stanley Co. Is 90 Years Old

JOHN T. Stanley Co., which celebrated its 90th anniversary in October, is one of the few remaining firms still manufacturing soap on the island of Manhattan, one of the five boroughs of sprawling New York City. Founded in 1865 by a young Englishman, John T. Stanley, whose name the family-operated soap company still retains, the firm is unique in many respects. Establishing a pattern of long service on the part of its executives, the founder, like its current president, was active in the business for 70 years, many of these as president.

When he arrived in the United States in 1859, after a 47-day trip across the Atlantic in a sailing vessel, John T. Stanley went to work the next day for his uncle, who was also in the soap business. Six years later he founded his own company in a small building located on Jane St. in lower Manhattan. A few years afterwards the business moved to West 15th St., where it employed only a few persons. The business then consisted of the manufacture of soft soap, textile soaps and candles.

The business grew and in 1892 it was necessary to move to larger quarters. This time it located at its present site on West 30th St. and North River. The plant, however, was still relatively small. Since that time, the Stanley company, through the buying of some buildings and the erection of others, has enlarged so that its present operation covers three-quarters of a large city block. Personnel grew, too, and the company now has approximately 300 employees and a fleet of more than 50 trucks.

John T. Stanley, founder of the firm, was active in the business until the day of his death in 1935 at the age of 93. He was succeeded as president of the company by his son, Alfred T. Stanley, who is still president. He is 87 years old and has been with the company for 70 years, thus matching his father's service record with the firm. When Alfred became president, his brother, the late John W. Stanley, became vice-president and acted in that capacity until his death at the age of 83 in June, 1954. John W. Stanley had been connected with the firm for about 66 years. He started his career as a salesman, later becoming secretary of the company.

Two other Stanleys, John T. and Alfred T., sons of John

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The Stanley plant occupies three quarters of a city block in New York City.



Optical Brighteners in Detergents

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Part II

OPTICAL *brightening with various stilbene derivatives:* Table 1 shows in graph form the brightening effect obtained with 9 symmetrical diacyl-1,3,5-triazinyl- and 1,2,3-triazole derivatives of 4,4'-diaminostilbene-2,2'-disulfonic acid on cotton, spun viscose, acetate rayon, wool, and nylon. The results obtained with asymmetrical substituted stilbene derivatives need not be considered in this study as in principle they are very similar.

On cotton, each of the nine compounds investigated showed very good to industrially useful brightening effects in the range of concentrations chosen when applied by the exhaust method and in washing. Compound 3 yields a reddish shade and compound 2 tends to be greenish in the exhaust process. Compound 9 alone shows a true green, especially in high concentrations, and can therefore be considered primarily as a toning agent for optical brighteners having too pronounced a red tint.

A similar picture is presented by the brightening effects of the nine compounds on bleached spun rayon, although it is true that the effects are obtained with somewhat higher concentrations of the optical brightener, this probably due to the weaker pre-bleach to which the spun rayon was subjected.

None of these nine compounds produces an industrially useful brightening effect on acetate rayon, neither by the exhaust method nor in the washing process; wool and nylon are brightened by compounds 1-6 by the exhaust method only, and not in the washing operation. Products 7-9 produce no useful effect by either of the processes.

Thus, all 9 symmetrical derivatives of 4,4'-diamino-stilbene-2,2'-disulfonic acid are unsuitable for acetate, wool, and nylon in the washing bath and are therefore less useful to the detergent industry since they do not fulfill the main requirement, i.e. suitability for the greatest possible variety of fibers. On the other hand, the majority of these compounds are suitable for the optical brightening of cellulosic fibers in the washing bath, although with some of them there is a danger of accumulation taking place.

2) *Optical brightening with other derivatives:* In addition to the symmetrical and asymmetrical stilbene derivatives, compounds of various chemical structure, such as aminocoumarins, pyrazolines, imidazolones, benzidine-sulfones, bisoxazoles, dibenzimidazoles and others are of interest as optical brighteners. The brightening effects obtained by the exhaust method and in washing with seven of these compounds are shown graphically in table 2. Whereas compound 12 yields an industrially useful brightening effect only on wool by the exhaust method, compound 11 gives better results on wool and nylon, but has very little effect on cotton and acetate rayon. However, neither of these compounds can be applied to any of the substrates in the washing process. On the other hand, compound 10 brightens acetate rayon, wool, and nylon by both the exhaust and washing method and in many cases it brightens the detergent itself. It is of little interest, however, for cellulosic fibers.

Compounds 13 and 14 are somewhat similar in their behavior to the stilbene derivatives: they can brighten cotton and staple fibers by the exhaust method and in the washing processes, the former compound giving a greenish white, and the latter tending to the somewhat reddish. They cannot be applied to acetate rayon, wool, and nylon in the washing operation.

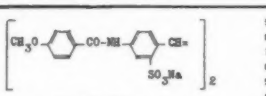
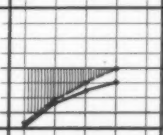
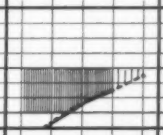
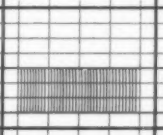
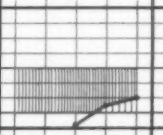
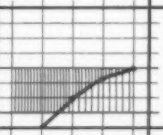
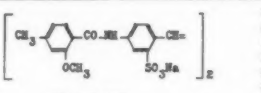
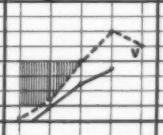
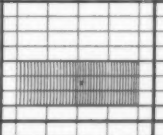
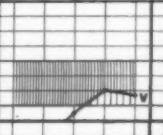
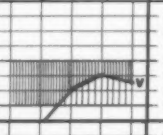
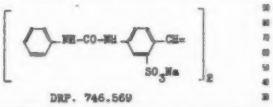
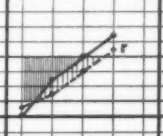
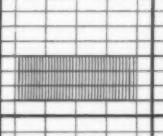
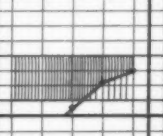
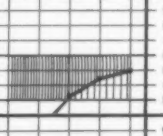
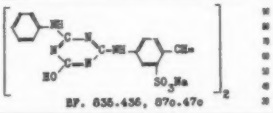
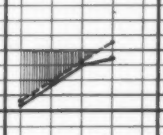
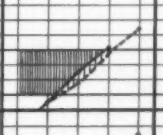
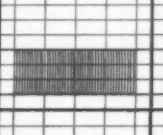
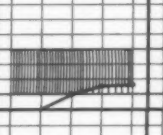
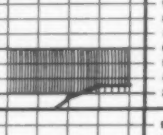
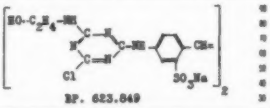
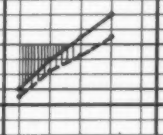
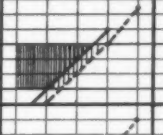
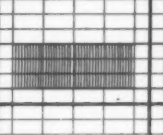
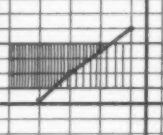
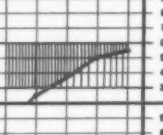
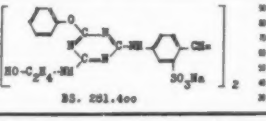
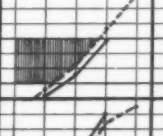
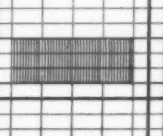
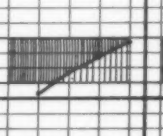
Compound 16, and particularly compound 15, are of special importance. As table 2 shows, compound 15 is able to brighten optically cotton, spun viscose, acetate rayon, wool, and nylon in the washing process, and thus fulfills the important requirement of being suitable for the greatest possible number of substrates. Added to this, the compound does not in any way exhibit the undesirable phenomenon of accumulation; it can be applied to the fiber at temperatures ranging between about 40°C. and the boil, is readily dispersed in detergents and does not color them.

3) *Stability in the washing bath to agents yielding oxygen and chlorine:* Table 3 is a graph of the brightening effects on cotton obtained with 10 of the 16 compounds given in tables 1 and 2 after washing in the presence of soap and agents yielding oxygen and chlorine.

Of the stilbene derivatives, compounds 2, 8 and 9 show excellent stability to hydrogen peroxide, whereas compound 5 proved to be the most unfavorable in this respect. As regards stability towards sodium hypochlorite on the other hand, only compound 2 can be rated as fairly good and compound 9 as very good,

the latter having, it is true, a very pronounced greenish shade. The other compounds are destroyed by chlorine in the washing bath. It is thus clear that the important requirement of good resistance to chlorine in the washing bath is fulfilled only by a few stilbene derivatives. This disadvantage plus the fact that compounds 1-9 cannot be used in the washing bath for brightening acetate rayon, wool, and nylon (cf. table 1) considerably restricts the field of application of these nine compounds.

Table 1

OPTICAL BRIGHTENER	SUBSTRATE	COTTON	SPUN VISCOSE	ACETATE RAYON	WOOL	NYLON	Brightening effect
	BRIGHTENED BY a) ——	liquor 1:30, 30 min., 20° C., 20% Na_2SO_4. 1o H_2O.	liquor 1:30, 30 min., 20° C., 20% Na_2SO_4. 1o H_2O.	liquor 1:30, 30 min., 50°C., 4% HCOOH.	liquor 1:40, 30 min., 60° C., 4% HCOOH.	liquor 1:40, 30 min., 60°C., 4% HCOOH.	
	b) – – –	liquor 1:30, 30 min., 95° C., 5 g.soap + 2 g Na_2CO_3/l.	liquor 1:30, 30 min., 50° C., 5 g.soap + 2 g Na_2CO_3/l	liquor 1:30, 30 min., 50°C., 5 g.soap/l.	liquor 1:30, 30 min., 50° C., 5 g. soap/l	liquor 1:30, 30 min., 50°C., 5 g. soap/l.	
	Concentration in per cent	0.005 0.01 0.02 0.1 0.3	0.005 0.01 0.02 0.1 0.3	0.005 0.01 0.02 0.1 0.3	0.005 0.01 0.02 0.1 0.3	0.005 0.01 0.02 0.1 0.3	
1	 BP. 647.716						
2	 BS. 276.692						
3	 DRP. 746.569						
4	 BP. 635.436, 670.470						
5	 BP. 623.849						
6	 BS. 281.4co						
7	BP. 1.o58.686						
8	BS. 293.678						
9	DRP. 911.366						
		0.005 0.01 0.02 0.1 0.3	0.005 0.01 0.02 0.1 0.3	0.005 0.01 0.02 0.1 0.3	0.005 0.01 0.02 0.1 0.3	0.005 0.01 0.02 0.1 0.3	

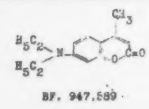
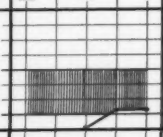
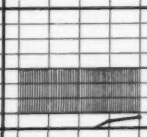
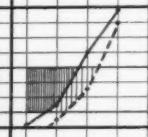
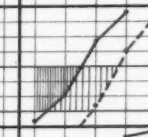
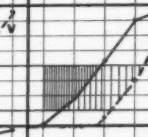
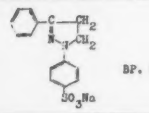
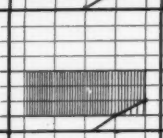
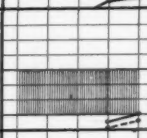
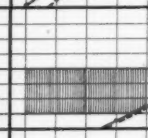
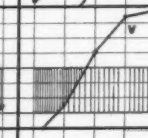
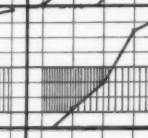
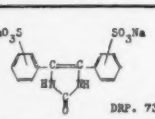
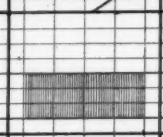
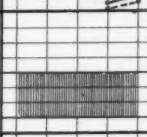
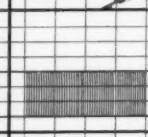
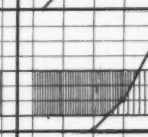
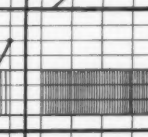
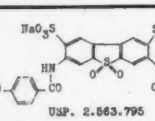
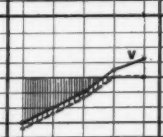
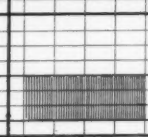
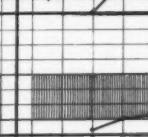
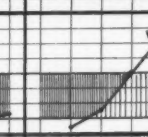
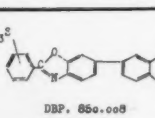
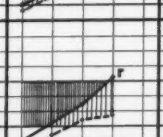
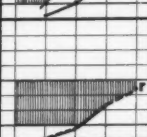
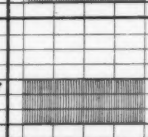
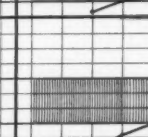
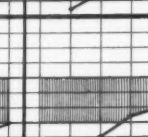
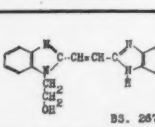
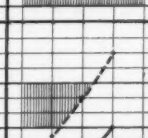
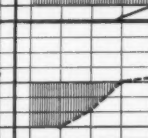
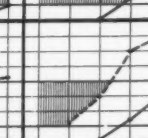
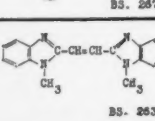
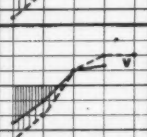
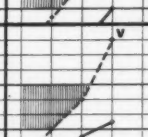
USP : United States Patent BP : British Patent FP : French Patent BS : Swiss Patent DRP : German "Reichs"-Patent DBP : German "Bundes"-Patent

Compound 13 shows good resistance to agents yielding oxygen and chlorine in the washing bath, the shade of the brightening effect being greenish. The affinity of compound 14 appears to be considerably impaired by the washing process at 85°C. or 95°C., respectively, but the product shows good resistance in the washing bath to agents yielding chlorine. Like the stilbene derivatives 1-9, these two compounds have the disadvantage of not being able to brighten acetate rayon, wool, and nylon (cf. table 2) in the washing process).

Compounds 15 and 16 exhibit good resistance to agents yielding oxygen and chlorine in the washing bath and also give a good yield, i.e. the industrially useful optimum brightening effect is very rapidly obtained even with small quantities. Moreover, when one considers that compound 15, for instance, can brighten acetate, rayon, wool, and nylon, as well as cotton and spun rayon in the washing bath, the wide scope of this and similar compounds is evident. It is therefore not surprising that Ciba, Ltd. has chosen certain optical brighten-

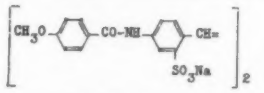
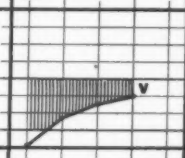
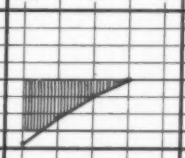
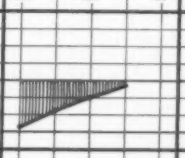
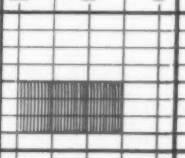
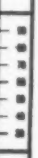
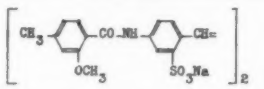
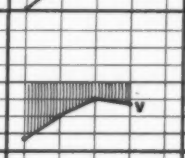
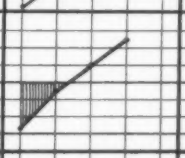
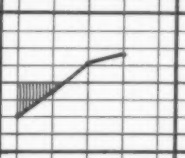
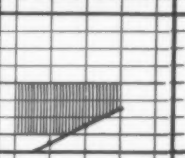
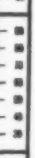
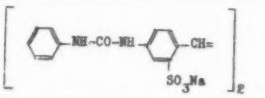
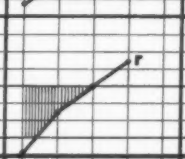
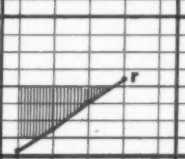
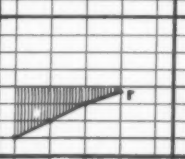
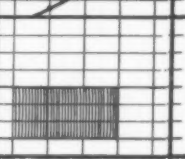
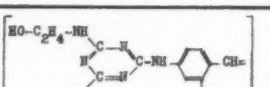
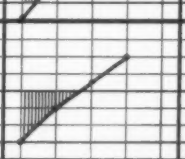
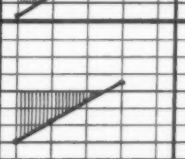
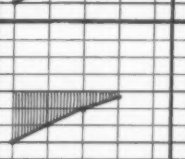
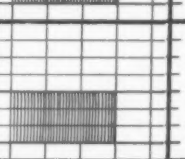
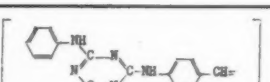
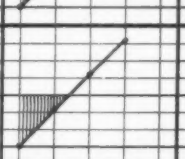
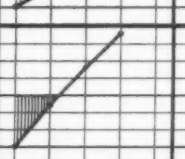
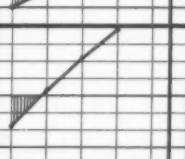
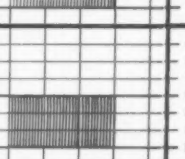
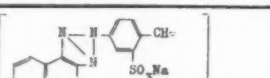
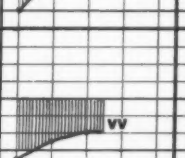
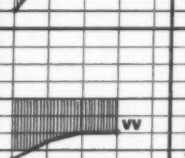
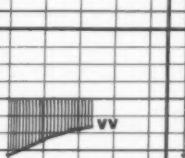
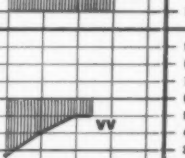
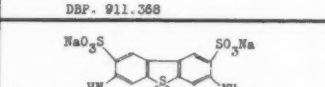
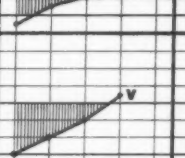
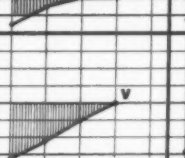
(*Turn to Page* 113)

Table 2

OPTICAL BRIGHTENER	SUBSTRATE	COTTON	SPUN VISCOSE	ACETATE RAYON	WOOL	NYLON	Brightening effect
	BRIGHTENED BY a) ——	liquor 1:30, 30 min., 20° C., 20% Na_2SO_4. lo H_2O.	liquor 1:30, 30 min., 20° C., 20% Na_2SO_4. lo H_2O.	liquor 1:30, 30 min., 50° C., 4% HCOOH.	liquor 1:40, 30 min., 60° C., 4% HCOOH.	liquor 1:40, 30 min., 60° C., 4% HCOOH.	
	b) – – –	liquor 1:30, 30 min., 95° C., 5 g.soap + 2 g Na_2CO_3/l	liquor 1:30, 30 min., 50° C., 5 g.soap + 2 g Na_2CO_3/l	liquor 1:30, 30 min., 50° C., 5 g.soap/l.	liquor 1:30, 30 min., 50° C., 5 g. soap/l	liquor 1:30, 30 min., 50° C., 5 g. soap/l.	
	Concentration in per cent	0.003 0.01 0.03 0.1 0.3	0.003 0.01 0.03 0.1 0.3	0.003 0.01 0.03 0.1 0.3	0.003 0.01 0.03 0.1 0.3	0.003 0.01 0.03 0.1 0.3	
10	 BF. 947.889						
11	 BP. 669.591						
12	 DRP. 735.478						
13	 USP. 2.563.795						
14	 DBP. 880.008						
15	 BS. 287.582						
16	 BS. 263.492						
		0.003 0.01 0.03 0.1 0.3	0.003 0.01 0.03 0.1 0.3	0.003 0.01 0.03 0.1 0.3	0.003 0.01 0.03 0.1 0.3	0.003 0.01 0.03 0.1 0.3	

USP : United States Patent BF : French Patent DRP : German "Reichs"-Patent
BP : British Patent BS : Swiss Patent DBP : German "Bundes"-Patent

Table 3

OPTICAL BRIGHTENER	ACTION OF BRIGHTENED BY (Substrate: cotton)	liquor 1:30, 30 min., 20° C., 20% Na_2SO_4. 1o H_2O	SOAP liquor 1:30, 30 min., 95° C., 5 g.soap + 2 g. Na_2CO_3/1	OXYGEN liquor 1:30, 2 hr., 85° C., 2,5 ml sodium silicate 71-72 Tw. (38° Bé) + 5 ml H_2O_2 30%/1.	CHLORINE liquor 1:30, 30 min., 50° C., 5 g.soap + 0,5 g. active chlorine/1	Brightening effect
	Concentration in per cent	0.005 0.01 0.03 0.1 0.3	0.005 0.01 0.03 0.1 0.3	0.005 0.01 0.03 0.1 0.3	0.005 0.01 0.03 0.1 0.3	
1	 BP. 647.718					
2	 BS. 276.692					
3	 DRP. 746.569					
5	 BP. 623.849					
8	 BS. 293.678					
9	 DBP. 911.368					
13	 USP. 2.563.795					
14	DBP. 850.008					
15	BS. 267.582					
16	BS. 263.492					
		0.005 0.01 0.03 0.1 0.3	0.005 0.01 0.03 0.1 0.3	0.005 0.01 0.03 0.1 0.3	0.005 0.01 0.03 0.1 0.3	

USP : United States Patent BF : French Patent DRP : German "Reichs"-Patent
BP : British Patent BS : Swiss Patent DBP : German "Bundes"-Patent



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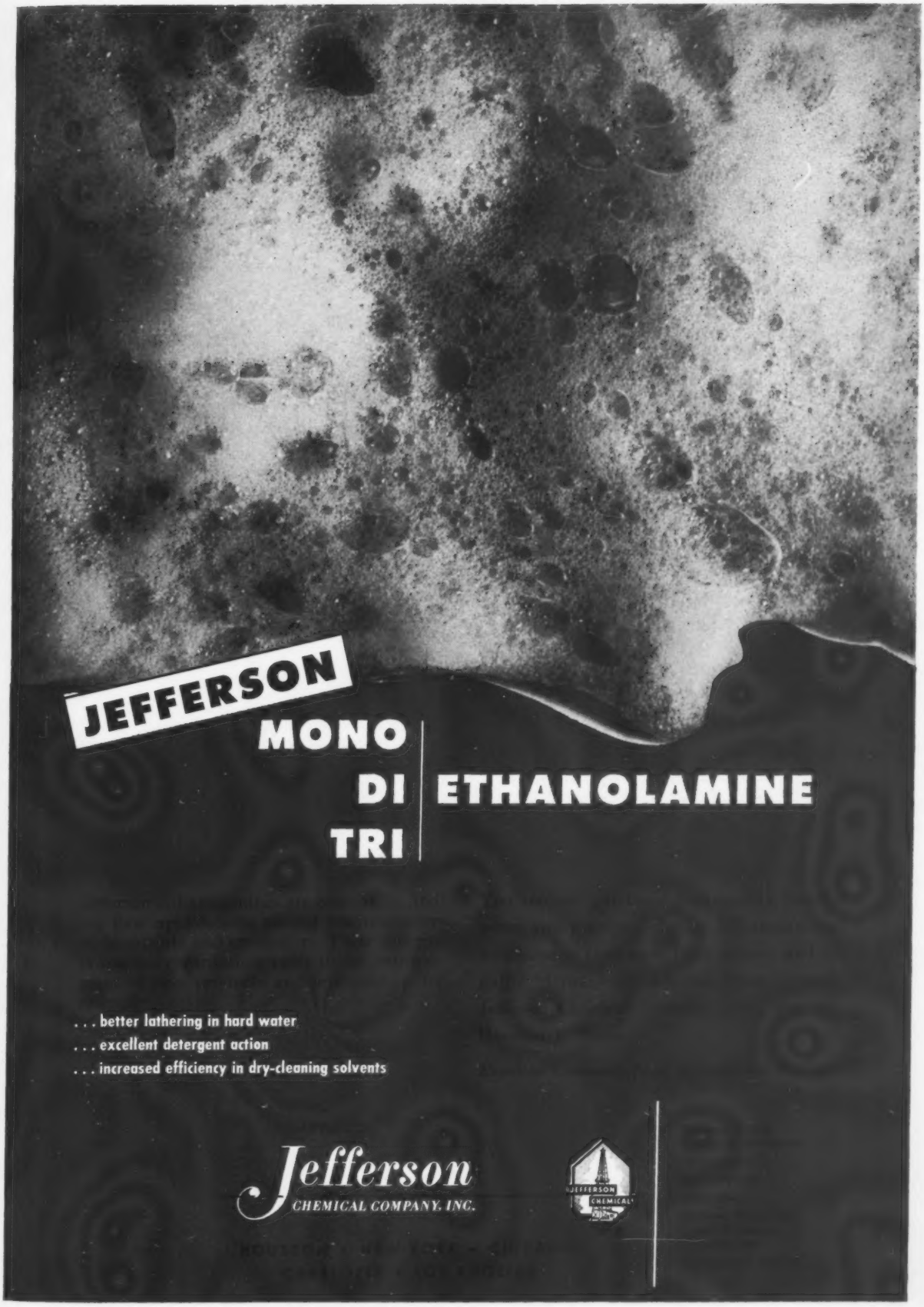
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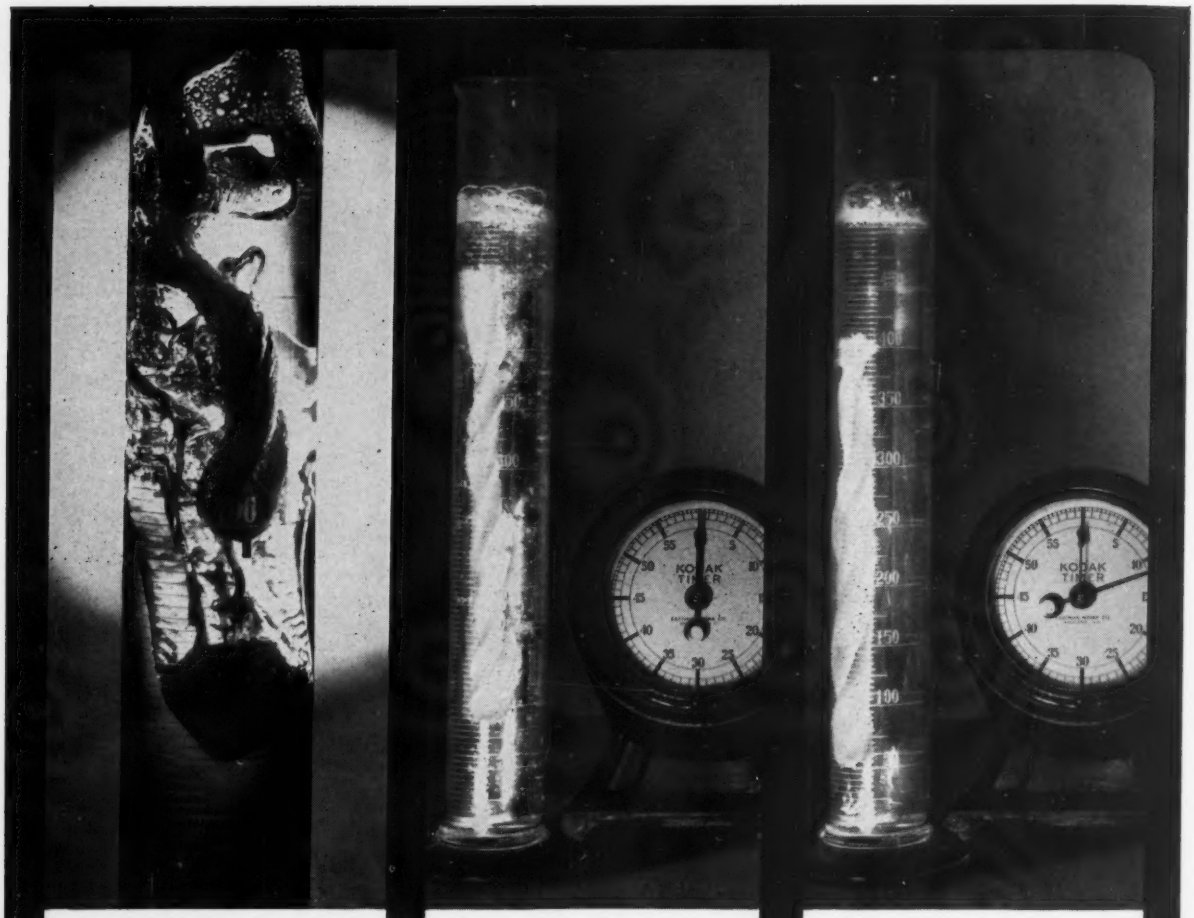
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Timer starts, skein fully immersed is not yet wet. Contrast loose shape with next photo.

12.5 seconds: skein wet; typical Draves-Clarkson wetting for 0.125% Santomerse No. 1.

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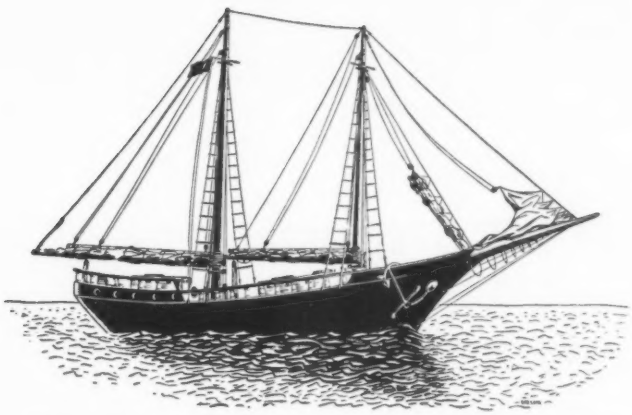
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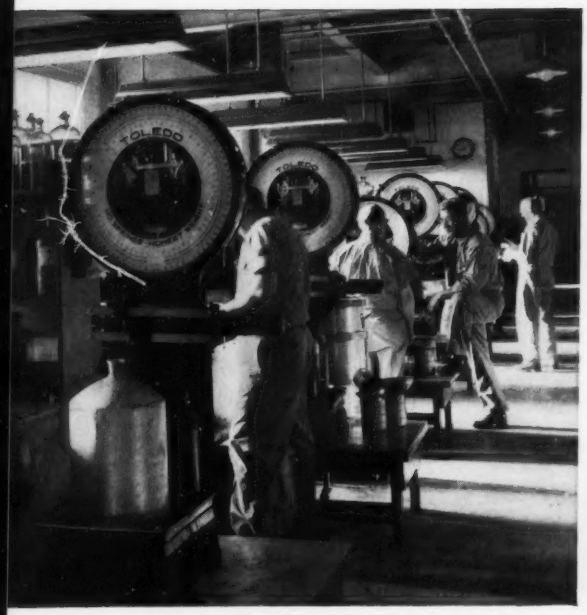
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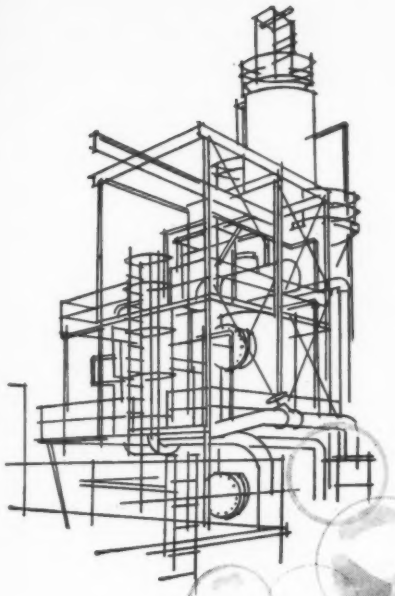
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Maintaining Nonionic Concentration

By B. F. Davis, K. E. Wattman and H. C. Speel*
Aquaness Corp., Houston, Texas

MAINTAINING the concentration of a surface active agent is a problem in many operations. When the surfactant is added to water to help promote wetting, cleansing or other action on fabric or a solid surface, there is apt to be a preferential adsorption from the working solution. In addition to "exhaustion," as this effect is sometimes called, there is occasionally dilution or evaporation under certain processing conditions. These factors often necessitate determination by empirical or analytical methods of the rate at which more detergent must be added to maintain a practical and economic concentration. For example, the petroleum industry has been seeking a simple accurate method for analyzing samples of water from secondary water flood operations, water injection and disposal wells, drilling muds and other systems to which nonionic surfactants have been added. Such a method is also needed for maintaining the concentration in certain metal cleaning baths, for control in various textile wet-processing stages and in many other industrial operations.

The normal migration of surfactant molecules to the surface of a solution, and consequently to any interface with another surface, produces measurable surface effects. These account for such properties as washing, wetting, sudsing, dispersing, emulsifying and other actions associated with surface active agents. As Flett(1) points out, the economical and effective use of detergents and other industrial surfactants requires a clear understanding of the effect which the detergent is intended to achieve. Is it a temporary effect, as in washing fabrics or dishes? Or is a more permanent effect, as in textile finishing or mothproofing, the desired end result? Analytical methods make it easier to understand and control the problems encountered.

The affinity of a surfactant for a contacting surface will vary with different surfaces and different surfactants. Differences in the nature and degree of preferential adsorption between ionic and nonionic surfactants often obscure the fact that nonionic solutions also show concentration losses in many cases. The work of Fineman (2) and others has shown that anionics tend to promote preferential wetting of many metal surfaces by the oil phase of a cleaner composition. The typical cationic causes preferential wetting of glass by the oil phase. A representative nonionic (e.g., an alkyl phenol polyether alcohol) will promote wetting of either type of substrate by the aqueous phase. It appears that the water soluble nonionics adsorb on both metal and glass in such a way as to produce a hydrophilic surface, in contrast to ionic types that are usually adsorbed in a manner that produces a hydrophobic surface on the substrate. Behaviour of this type naturally leads to concentration changes in the working solution, and hence to needs for analytical methods.

Test Methods

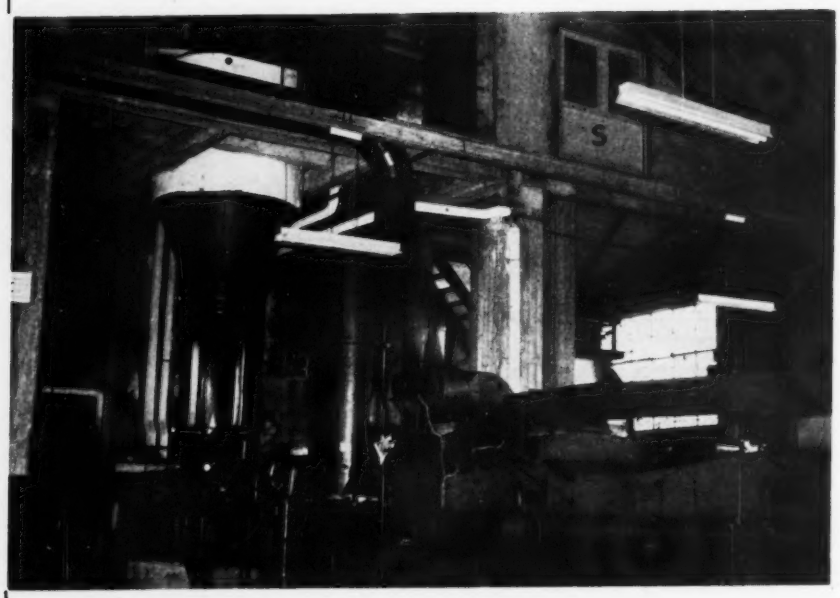
A number of interesting, though fairly complex, test methods for the quantitative determination of ethylene oxide adducts in aqueous solutions or dispersions have appeared in recent literature. Shaffer and Critchfield (3) described two methods, one gravimetric, the other colorimetric, using silicotungstic and phosphomolybdic acids. Oliver and Preston (4) employed phosphomolybdic acid and barium chloride to precipitate the ethylene oxide compounds in hydrochloric acid solution, establishing a weight ratio of the complex to the precipitating agent used. Haakh et al (5) precipitated the ethylene oxide adducts with a resorcine-glucose condensation product and determined the precipitate gravimetrically.

Schonfeldt (6) precipitates the adduct by addition of hydrochloric acid, sodium chloride and ferrocyanic acid, followed by filtration and titration with zinc sulfate. Even with this method that is designed for factory control, an empirical factor must be determined for each ethylene oxide adduct. Then the concentration of the adduct can be calculated from a standard curve.

The use of cloud point determinations to indicate the degree of solubility of a nonionic in water, and hence the ethylene oxide chain length, is both simple enough and

*Consulting Chemist, Darien, Conn.

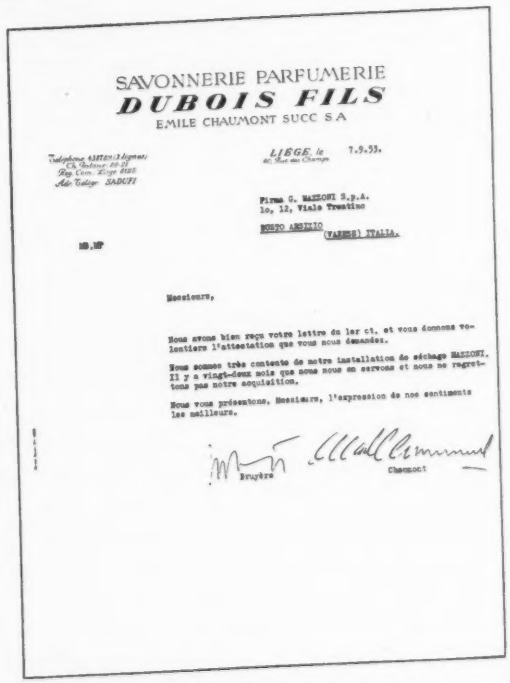
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- ★ Transparent toilet and laundry soaps without addition of glycerine, alcohol, sugar, and any other additives.
- ★ Complete installations (mixers, mills, plodders, cutters and stampers) for milled toilet soap and soap flakes.
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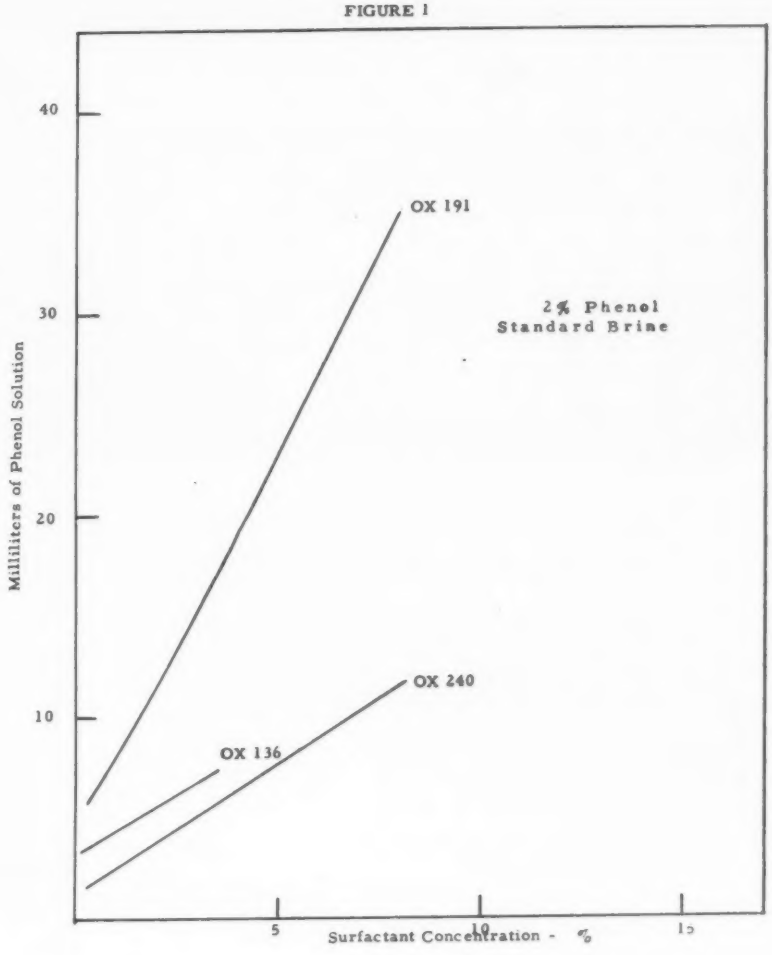
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accurate enough (7) for plant control use. Due to the inverse solubility characteristics of such ethylene oxide products, as evidenced by lower solubility at higher temperatures for a given product, the cloud point can be taken as a measure of water solubility. Thus a nonylphenol adduct made by adding ten moles of ethylene oxide has a cloud point of 67°C. in distilled water; a nonyl phenol adduct with 12 moles has a cloud point of about 82°C. and one with 15 moles a cloud point of 98°C., assuming all three were made under identical conditions. Since solubility is usually decreased in the presence of electrolytes, it is often possible to obtain a cloud point at or near room temperature, if that is desirable. For example, the addition of about four percent NaOH or Na_2CO_3 will lower the cloud point of an aqueous solution of the 10 mole adduct to just about room temperature. While standard curves for plant control use can be plotted from such data, we have not been able to modify this method to get meaningful variations due to differences in concentration of the adduct itself.

FIGURE 1



A New Method

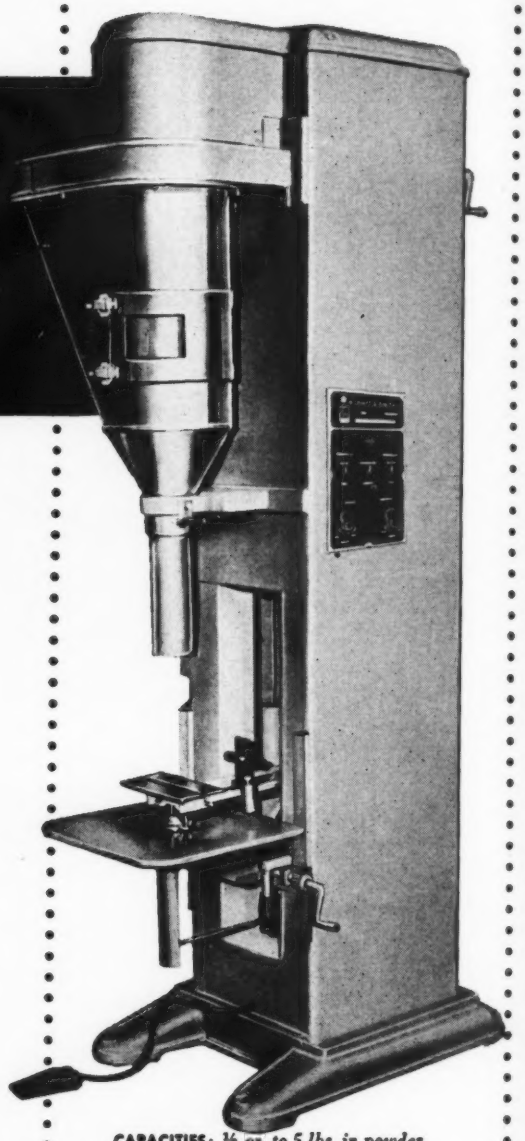
THE effect of various substances, including phenol, upon solubility of a number of ethylene oxide adducts led to a study of the possibility of this being a variation that might help with the problem. Karabinos (8) reported a method that showed promise in the analysis of ethenoxy chain length where the hydrophobic group is known. Titration of samples of solutions of decyl ethers containing various amounts of ethylene oxide with phenol showed a variation of solubility that could be related to the length of the ethylene oxide chain. This relationship held for other hydrophobic groups, although when plotted on one graph the various lines crossed. Unless the hydrophobic group was known, the method was of limited value.

Titration of water or brine solutions of many nonionics with a solution of phenol can be carried out with excellent precision and accuracy. As the phenol solution is added to a solution containing a nonionic, the nonionic solution remains clear until enough phenol has been added to insolubilize the nonionic. At this point the solution changes from a clear solution to a definite opalescent solution. This end point is quite sharp and easily duplicated by different operators. It is simple and accurate enough for both laboratory and field work.

Using a variation of this method, it is possible to determine quantitatively the percent of nonionic in solution provided the type of nonionic is known. A plot of the milliliters of phenol solution versus the concentration of nonionic results in a straight line for a great many different types of nonionics. In general this method has been found applicable to nonionics whose hydrophobic groups consist of C_5 and longer alkyl phenols, fatty alcohols and alkyl amines, and whose hydrophilic group is composed of ethylene oxide units. The method has not proven successful for fatty acid esters, or completely successful for polyethylene glycols.

Experimental: Samples of known amounts of nonionics were prepared in distilled water and/or brine ranging in concentration from ¼ weight percent to 15 weight percent. Twenty-five milliliters of these samples were titrated with a solution of two percent U. S. P. phenol dissolved in distilled water. (In several cases it was necessary to use an eight percent solution of phenol to obtain a reasonable titration; this did not appreciably change the results.) The results of these titrations were graphed by plotting the milliliters of phenol solution

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versus the concentration of the nonionic expressed in weight percent. In almost every case this proved to be a straight line relationship in the range between ¼ and 15 percent.

The properties of the following nonionics were investigated in this manner:

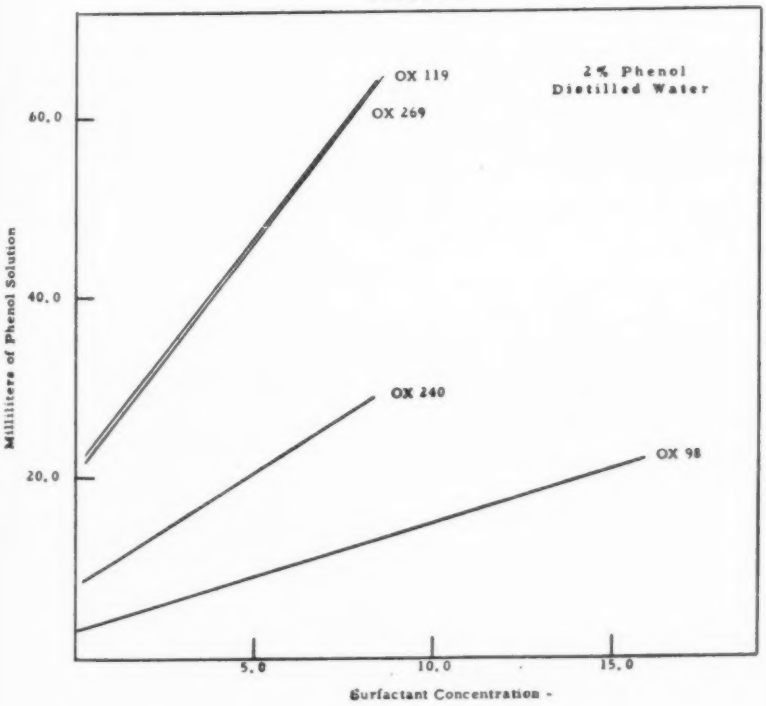
Code No.	Chemical Description	Solvent
OX 98	Nonylphenol + 10 moles E.O.	Distilled water
OX 240	Nonylphenol + 12 moles E.O.	Distilled water
OX 240	Nonylphenol + 12 moles E.O.	Brine
OX 191	Nonylphenol + 30 moles E.O.	Brine
OX 269	Lauryl alcohol + 23 moles E.O.	Distilled water
OX 269	Oleyl Alcohol + 10 moles E.O.	Distilled water
OX 136	C_{12}branched amine + 15 moles E.O.	Brine

The following materials could not be titrated because of a poor end point (titrations varied over a wide range) or because the material formed a cloudy solution in water:

Code No.	Chemical Description
OX 177-15	Tall oil + 15 moles E.O.
OX 361	Coco fatty acids + 5 moles E. O.
OX 234	Castor oil + 30 moles E.O.
OX 180	Nonylphenol + 32 moles propylene oxide
OX 303	Meta Cresol + 3 moles E.O.

Results: The results of the titrations are shown in Figures 1 and II. In each case the relationship between milliliters of phenol and per cent of nonionic is a straight-line function. As the length of ethylene oxide (E.O.) chain is increased for any given hydrophobic group, the titration is raised. The presence of inorganic salts (70,000 ppm NaCl) does not affect either the ease or the accuracy of the titration, although their presence does shift the location of the line, just as it affects the cloud point measurements described earlier. In general, less phenol will be required to insolubilize any given nonionic as the concentration of inorganic salt is raised. The temperature of the solutions naturally affects the results and therefore should be controlled to ± 5°F. during the titrations.

FIGURE II



No attempt was made to determine the maximum or minimum concentration of nonionic that can be detected by this method, although it appears to be effective for nonylphenol adducts (9 to 30 moles E.O.) in the range of ¼ to 15 percent nonionic.

Discussion: This method is applicable where a single, defined (although not necessarily chemically identified) nonionic is used in a given system. For example, if a nonionic of unknown composition is to be used in a drill fluid, injection system, textile scouring operation or metal cleaning bath, a standardization curve can be determined by adding known amounts of the nonionic to several samples of the given solvent and titrating with a solution of phenol. Once this curve has been determined, a titration of an unknown sample can be performed using phenol and the per cent nonionic determined from the standardization curve.

Summary

A method for quantitative determination of nonionic surface active agents in aqueous solution is described. Phenol is shown to be a valuable reagent for titration in water or brine solutions even when the hydrophobic group is not known. Simplicity and excellent reproducibility among various operators make it equally useful in the field and the laboratory.

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— Olive oil foots soaps;
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Dear Sirs,

We are very pleased to inform you that you SAIX 2C Cooling Plodder is working most satisfactorily.

We are now utilising the machine for all our Bar Soap production which includes a wide variety of soaps all varying qualities and formulations.

We have found from experiance that these soaps are far superior to soaps made by the older conventional methods. They have better washing and lathering properties and also do not distort or twist in storage.

The savings in labour and scrap soap have far exceeded our expectations. The guaranteed output has been maintained in practise and the power and water consumption are well within your specifications.

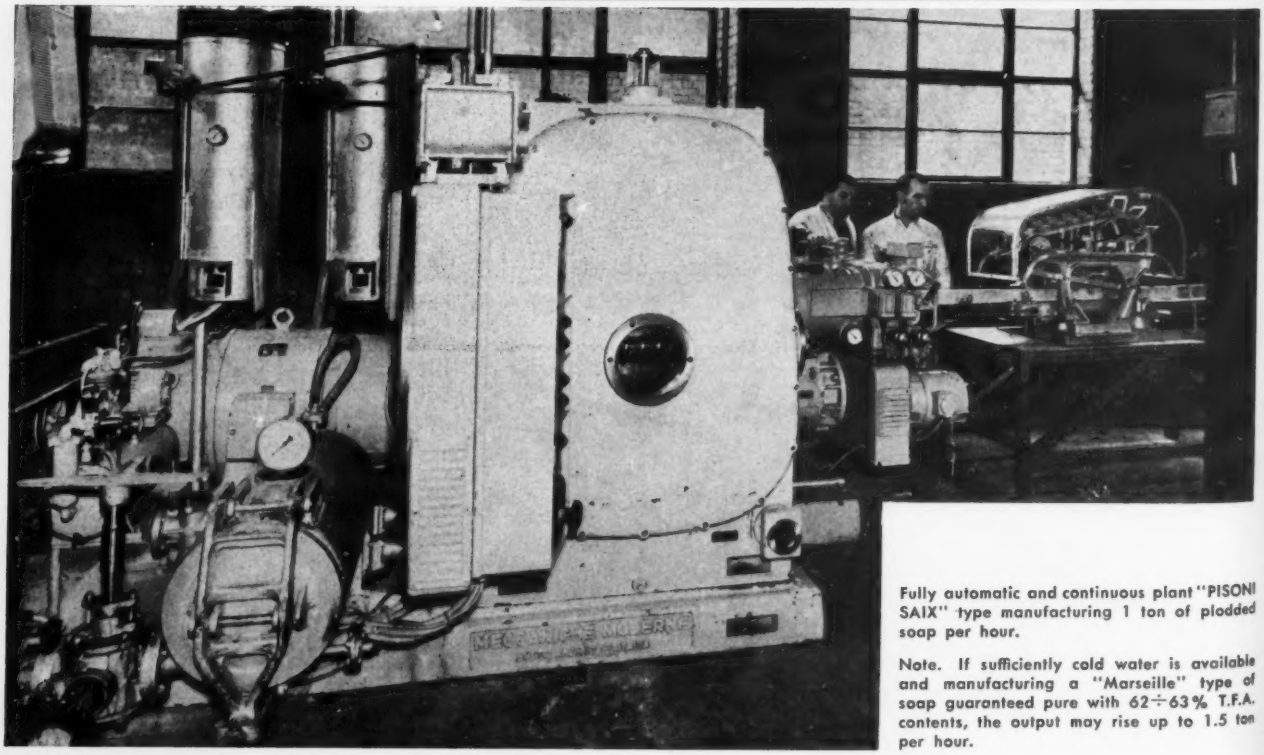
In our opinion this machine is the most revolutionary piece of machinery introduced in the soap making industry in recent years. We can assure you of our complete satisfaction with its performance in all respects, and also we much appreciate the helpful service and advice which has been offered by you at every stage during the erection and trial periods.

We have every confidence in recommending this machine to any producer of household soap.

Yours faithfully,

John T. Terleski

Dr J.T. Terleski. (Director).



Fully automatic and continuous plant "PISONI SAIX" type manufacturing 1 ton of plodded soap per hour.

Note. If sufficiently cold water is available and manufacturing a "Marseille" type of soap guaranteed pure with 62÷63% T.F.A. contents, the output may rise up to 1.5 ton per hour.

(7) R. L. Mayhew and R. C. Hyatt, *J. Am. Oil Chemists' Soc., 26,* 357-362, September 1952.
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Table I.—Titration of Various Nonionics with 2% Phenol

Aquaness Code No.	Type of Solution	Ml. of 2% Phenol for Various Concentrations 0.25%	0.50%	1.00%	3.00%	8.00%	15.00%
OX 98	Dist. water	3.65	3.95	4.55	6.80	12.75	21.00
OX 240	Dist. water	8.90	9.55	10.80	15.65	28.10	45.60
OX 240	Std. Brine	1.635	1.93	2.475	5.00	13.05	2.07
OX 191	Std. Brine	5.65	6.4	7.98	15.13	35.24	—
OX 119	Dist. water	22.58	23.8	26.05	36.5	62.16	—
OX 269	Dist. water	21.95	22.25	25.10	35.83	62.10	—
OX 136	Std. Brine	3.575	3.80	4.375	6.70	12.8	21.2

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The full line of Vanton's "flex-i-liner" plastic pumps is described and illustrated in a new catalog.

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MECCANICHE MODERNE

CORSO SEMPIONE, 51 — BUSTO ARSIZIO (ITALY)

CHARACTERISTICS OF THE "PISONI SAIX" PLANT

It is the only plant on the market which continuously cools soap with simultaneous extrusion of a continuous bar maintaining unchanged total fatty acids content as determined before cooling.

It comprises one special cooling plodder which, working without any endless screw, can extrude soaps made with fats having a high or low melting point even if containing high percentages of water or builders, namely:

— Pure soaps having 62-63% T.F.M.;
— Soaps having T.F.M. from 35% to 62-63%;
— Soaps having T.F.M. 62-63% with 25÷30% rosin;
— Soaps having 56% T.F.M. with 25-30% rosin, filled with silicate or soda carbonate;
— Mixing soaps having 100% cocoanut oil;
— Olive oil foots soaps;
•—Pure peanut oil soaps.
— Soaps with Phenol;
— Dry, pure or filled, soaps having T.F.M. contents from 35 to 70-72%;
— Transparent laundry or toilet soaps having 70-72% T.F.M.

Savings: Steam, 100% — Labor, 70% — water, 50% — power, 50%.

A fully automatic and continuous operation — only one workman to run the plant—small space requirements—absolutely no scraps—automatic perfuming.

By our process foaming capacity is highly increased—cakes undergo no deformation during storage neither moisten package.

These plants are manufactured for the following output capacities: 0.5 — 1 — 2 — 3 tons per hour.

We also manufacture:
Complete plants for pilled toilet soaps — chips — synthetic detergents in beads form.

Free and without any obligation, ask for tenders — references—catalogues—soap samples—plants inspection.

SOAPS & GLYCERINE

THIS COMMUNICATION IS FROM

DAVID THOM & CO. LTD
WHIT LANE WORKS
SALFORD : 6
LANCS
TELEPHONE: PENDLETON 2838 2839
TELEGRAMS "THOM, MANCHESTER"

Office

Ref. JTT/MM.

14th July, 1955.

Messrs. Meccaniche Moderne,
Casella Postale 180,
BUSTO ARSIZIO,
Italy.

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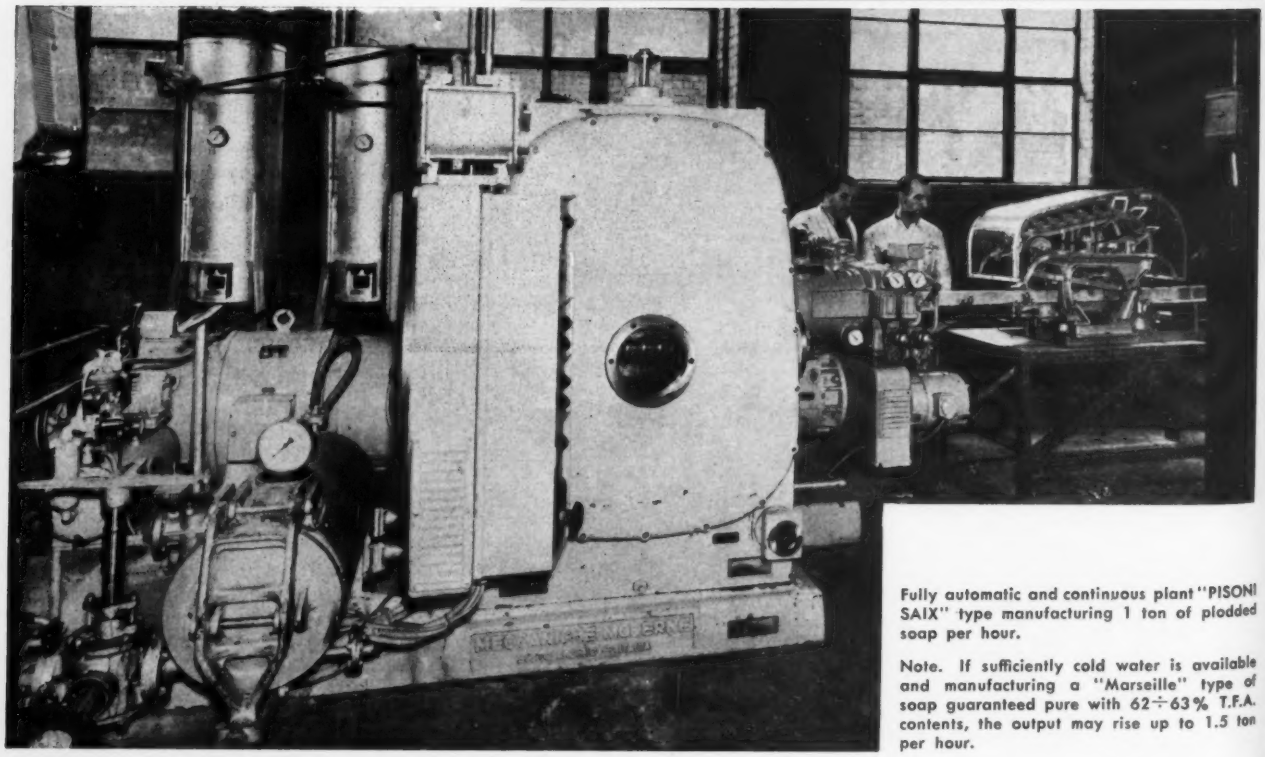
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A GOOD PRODUCT DESERVES A CLEAN CONTAINER

More and more, packaging engineers are experiencing new economies gained by air-cleaning new containers . . . economies either in the packaging process or in the marketing of the product, or both.

Air-cleaning costs so little . . . the lack of it can cost so much! Once a Sanitair is synchronized into the production line, its operation is entirely automatic. Operating safeguards are automatic. Speed is adjustable to any line operation. Quick changeover for all sizes of containers. Handles all-glass sprinkler top, wide mouth and aerosol valve finishes.

Learn why there are more Sanitairs in use today than any other automatic air cleaners and consider how profitable a Sanitair can be to your business. Write for the Sanitair Bulletin.

Specialists in Liquid Filling and Container Cleaning Equipment



THE EZ AIR CLEANER. A portable machine adaptable to standby service on peak loads. Air-cleans two containers at a time. Capacity 20 to 40 containers per minute. Can connect to user's air supply. Built-in air compressor optional. Write for EZ Bulletin.

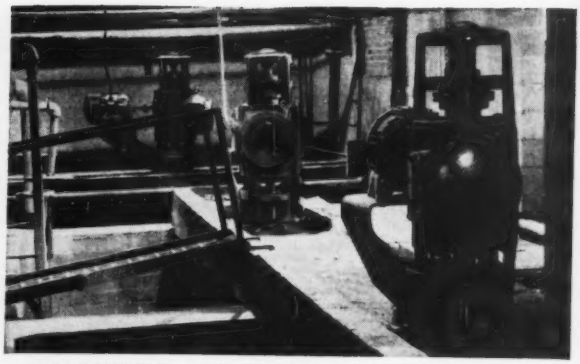


U. S. ROTARY RINSER. Rinses both insides and outsides of containers. Can employ water, steam or air. Containers are protected against neck-chipping as they rest on shoulders. Handles any size or shape bottles or jars. Write for Rotary Rinser Bulletin.

U. S. BOTTLERS MACHINERY COMPANY

4019 North Rockwell Street • Chicago 18, Illinois

BOSTON • NEW YORK • PHILADELPHIA • HOUSTON • DALLAS
LOS ANGELES • SAN FRANCISCO • DENVER • SEATTLE • PORTLAND
PHOENIX • NEW ORLEANS • TAMPA • ATLANTA • MONTREAL
TORONTO • VANCOUVER • WINNIPEG • EXPORT OFFICE: TOLEDO



MIX LARGE VOLUMES rapidly, thoroughly—at fully predictable rates—with turbine-type LIGHTNIN Mixers like these. Hundreds of power-speed combinations, for open or closed tanks. Sizes 1 to 500 HP.

How to choose a fluid mixer

Choose a fluid mixer that gives you:

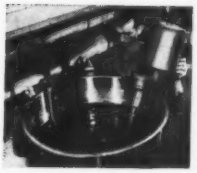
1. The exact balance of *fluid flow* and *fluid shear* to make your process work at top efficiency.
2. Lowest possible rate of machine obsolescence—to save yourself maintenance and replacement dollars.

Here's why you get *both* with LIGHTNIN Mixers:

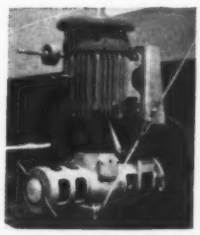
Mixing results can be predicted accurately—and scaled-up accurately—with LIGHTNIN Mixers. Every LIGHTNIN is guaranteed to give you the results you want—or your money back. This unique guarantee is based on nearly 30 years of research, and thousands of successful installations.

You get years and years of service from LIGHTNIN Mixers. Such features as ball-bearing motors, flex-protected shaft suspension, interchangeable shafts, mountings, and speeds, keep maintenance and replacement costs low. Many LIGHTNINS have been in service 20 years and more.

Get the facts now on fluid mixing that gives you these advantages without risking a penny. Call in your LIGHTNIN representative today. You'll find his name in your office copy of Thomas' Register.



MAKE A MIXING UNIT of any open tank, by adding the correct LIGHTNIN Portable Mixer. Rapid, uniform mixing with uniform power. Thirty models. Sizes ⅛ to 3 HP.



BLEND, SUSPEND, DISPERSE in large tanks with a LIGHTNIN Side Entering Mixer. Cut maintenance costs, with choice of easy-to-repack stuffing box, or mechanical shaft seal that eliminates repacking entirely. Sizes 1 to 25 HP.

Lightnin® Mixers™

GET THESE HELPFUL FACTS ON MIXING—LIGHTNIN Catalogs are packed with useful data on fluid mixing, plus full description of LIGHTNIN Mixers. No obligation. Check the catalogs you want and mail with your name and address to:

- ☐ **DH-50** Laboratory Mixers
- ☐ **DH-51** Explosionproof Laboratory Mixers
- ☐ **B-102** Top Entering Mixer (turbine and paddle types)
- ☐ **B-103** Top Entering Mixer (propeller type)
- ☐ **B-104** Side Entering Mixers
- ☐ **B-105** Condensed Catalog (complete line)
- ☐ **B-107** Mixing Data Sheet
- ☐ **B-108** Portable Mixers (electric and air driven)

MIXING EQUIPMENT CO., INC.

167-n Mt. Read Blvd., Rochester 11, N. Y.

In Canada Greey Mixing Equipment Ltd. 100 Miranda Ave., Toronto 10, Ont.

of automatic dishwashers, clothes washers and dryers, water softening equipment etc.

—★—

Linde Silicone Folder

Silicones classified by uses are described in a four-page folder published recently by Linde Air Products Co., New York. The brochure, entitled "Look to Linde for Silicones," covers properties and use information concerning silicones for water repellents, waxes and polishes, hydraulic fluids and other compounded specialties.

—★—

R & H Surfactants List

Surface active agents for use in the textile industry are briefly described in a list announced recently by Rohm & Haas Co., Philadelphia. The products are listed under their trade names, classified according to chemical type, and their basic use characteristics are summarized.

—★—

New "Simplex" Filler

Quick change-over, ease of cleaning and high speed are claimed by F. L. Burt Co., San Francisco, for its new semi-automatic filler. "Simplex" model A is a single piston filler made of acid-resistant contact parts. The unit dispenses one to 32 ounces of liquids or semi-solids into bottles, jars or plastic containers. The unit fills 15 to 30 containers per minute, can be dismantled for cleaning in less than five minutes.

—★—

Stokes Advances Two

Sam Greenwood has been advanced to the position of field sales manager for F. J. Stokes Machine Co., Philadelphia, it was announced recently by A. A. Hutchings, Jr., vice-president in charge of sales. At the same time Fred Hillsley was appointed district manager of the Philadelphia territory, a post previously held by Mr. Greenwood.

As field sales manager Mr. Greenwood directs all local sales activities in the United States and Canada and supervises the operations of the 10 Stokes district offices. Prior to joining Stokes in 1949, he was associated with American Meter Co., Erie, Pa.

Mr. Hillsley went with Stokes in 1953 as sales engineer in the Philadelphia district. Prior to that he was associated with Corning Glass works as chief engineer of the company's plant at Central Falls, R. I.

S. Greenwood



F. Hillsley



—★—

Guzman to Gair

Humbert R. Guzman has joined the sales staff of the Los Angeles Folding Carton Division of Robert Gair Co., New York, it was announced recently by Homer G. Murphy, Pacific Coast sales manager. Prior to going with Gair, Mr. Guzman was with Bond Crown and Cork Co., Division of Continental Can Co., New York.



Custom

OXYALKYLATION
ESTERIFICATION

PRODUCTS MANUFACTURED TO YOUR SPECIFICATIONS IN COMMERCIAL QUANTITIES

OXYALKYLATIONS—reactions involving a labile hydrogen atom and ethylene oxide, propylene oxide or mixtures of oxides.

ESTERIFICATIONS—reactions involving a fatty acid and an alcohol, amine o similar compound.

■ Aquaness Custom Service places at your disposal modern laboratory, pilot plant and full-scale plant facilities with unexcelled quality control. You enjoy the advantages of **complete** facilities without the expense of installing equipment or developing processes. Aquaness will either furnish all the materials or process your products on a toll basis.

Let us show you how Aquaness
Custom Service can meet your requirements.
Your inquiry involves no obligation, of course.

Aquaness
Corporation

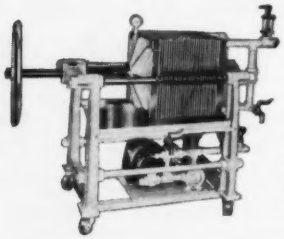
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ERTEL EQUIPMENT SERVES
The SOAP SPECIALTIES Industry



ERTEL MODEL EFS FILTER

Designed for use with any type filtering medium. Uses 10 to 40 filtering surfaces 12"x12" square. Filter media creates its own gasket, thus rubber washers are eliminated. Nickel plated bronze or all stainless steel circulatory passages.



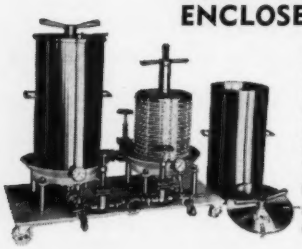
EU MODEL UTILITY FILTER

Comparison and operation records prove this 16" square filter unmatched in performance. Fully described in catalog. Ask for your copy.

ERTEL ASBESTOS FILTER SHEETS

Available in ten uniform grades for all filters up to 25" square. Manufactured under rigid control, they are acid treated to meet Ertel standards of low leachable calcium and iron content. As a double check, these pads are analyzed periodically by an independent laboratory . . . reports of these tests are available at any time. A complimentary set-up of these pads for your present filter is available upon request.

ECD MODEL ENCLOSED DISC FILTER



Incorporates the outstanding feature of independent closing of filtering elements thus providing a positive seal. A unit built by engineers for trouble-free operation. Twin cylinder unit illustrated—also available with single cylinder for smaller capacities.

ERTEL ENGINEERING CORPORATION

KINGSTON 6, NEW YORK

Branch Office & Showroom Located in New York City

OUR REPRESENTATIVES SEE VOL. III THOMAS REGISTER

COMPLETE LINE OF *Liquid Handling Equipment*

ERTEL

the open door to - - -



- Caustic soda
- Caustic potash
- Potassium Carbonate
- Potassium Persulphate
- Ammonium Persulphate
- Muriatic acid
- Nitric acid
- Soda Ash
- Sodium Bicarbonate
- Sodium Metasilicate
- Silicate of soda
- Silicate of potash
- Trisodium phosphate
- Metallic stearates
- Borax
- Boric acid
- Coconut oil
- Coconut fatty acids
- Red oil
- Sulfuric acid
- Stearic acid
- Tallow

Liquid Caustic Soda, Caustic Potash, Potassium Carbonate and Acids

Tank trucks, carboys and drums a specialty

Joseph Turner & Co

RIDGEFIELD, NEW JERSEY

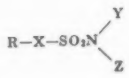
83 EXCHANGE PLACE
PROVIDENCE, R. I.

435 N. MICHIGAN AVE.
CHICAGO 11, ILL.

NEW Patents

The data listed below is only a brief review of recent patents pertinent to the readers and subscribers of this publication. Complete copies may be obtained by writing to the publisher of this magazine, Mac Nair-Dorland Co., 254 W. 31st Street, New York 1, N. Y., and remitting 50c for each copy desired. For orders received from outside of the United States the cost will be $1.00 per copy.

No. 2,721,847. Synthetic Detergent Composition, patented by Arthur Ira Gebbart, Union, N. J., and Irving Joseph Krems, Bronx, N. Y., assignors to Colgate-Palmolive Company, Jersey City, N. J.. The patent discloses a detergent composition consisting essentially of a water-soluble detergent selected from the class consisting of the water-soluble anionic organic sulfate and sulfonate detergents, and a sulfonamide additive represented by the formula:



wherein R is a higher alkyl group, X is a mononuclear aromatic nucleus, Y is selected from the class consisting of hydroxyalkyl groups having up to 5 carbon atoms and polyalkyleneoxy groups, and Z is selected from the class consisting of hydrogen, lower alkyl groups having up to 5 carbon atoms and the groups specified for Y above, said polyalkyleneoxy groups having an average total of up to about 9 molecular quantities of alkylene oxide of 2 to 4 carbon atoms, the amount of said sulfonamide being less than the weight of said water-soluble anionic detergent and sufficient to improve the soil removal power thereof.

No. 2,719,783 and No. 2,719,784. Low Volatile Composition for Controlling Vegetation Growth, patented by Gustave K. Kohn, Berkeley, Calif., to California Spray-Chemical Corporation, Richmond, Calif. Each patent covers a herbicidal composition comprising an inert carrier and the tetrahydrofurfuryl ester of 2,4-dichlorophenoxyacetic acid and of 2,4,5-trichlorophenoxyacetic acid, respectively, said ester being present in the composition in phytocidal concentration.

No. 2,719,785. Herbicidal Compositions, patented by Gordon B. Johnson, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif. An emulsifier is described each 100 parts by weight whereof on non-aqueous basis comprises about 25 to about 40 parts by Weight of a C_1-aliphatic alcohol and from about 75 to about 60 parts by weight of an anionic surface-active agent selected from the group consisting of sodium C_9-C_{18} monoalkyl benzene sulfonates and sodium C_8-C_{18} monoalkyl sulfates and containing intimately admixed therewith from about 2 to about 15% by weight of sodium sulfate, based on the combined weight of non-aqueous ingredients of said surface-active agent. This emulsifier is capable of emulsifying in water an aromatic petroleum hydrocarbon oil boiling between about 300 and about 750° F. and containing in solution a weed-killing toxicant from the group consisting of pentachlorophenol, 2,4-dichlorophenoxyacetic acid and their salt and ester derivatives.

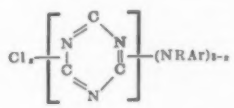
No. 2,720,536. Inactivation of Primary Amines in β-Alanine Detergent Mixture Compositions, patented by David Aelony and Harold Wittcoff, Minneapolis, Minn., assignors to General Mills, Inc. This patent teaches a process of inactivating free primary amines in a β-alanine detergent composition in which the β-alanine contains an aliphatic hydrocarbon substituent of from 8 to 22 carbon atoms on the amino nitrogen. The process comprises reacting said β-alanine detergent composition with an aldehyde which is reactive with primary amines to produce products inert to human skin.

No. 2,721,848. Paint Removing Process and Composition, patented by Emil A. Vitalis, Springdale, Conn., assignor to American Cyanamid Company, New York, N. Y. A method of softening dried paint is covered which comprises applying thereto a 2-50% solution in a liquid volatile organic solvent of an ethylene oxide condensation product of an aliphatic guanidinium N-alphatic carbamate in which the aliphatic radicals contain 4 to 18 carbon atoms. This condensation product contains about 1-25 mols of combined ethylene oxide for each mol of amine combined in said carbamate.

No. 2,721,165. Control of Wax Deoiling, patented by Donald C. Roberson, Warrensville Heights, and Warner E. Scovill, Lakewood, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio. This patent teaches a method of preparing finished wax of a predetermined oil content which comprises the steps of (1) sweating an oil-wax mixture, (2) withdrawing a sweat stream sample, (3) passing through said sample ultraviolet light of that wavelength between about 240 and 350 millimicrons which corresponds to the characteristic absorptivity peak of said sample and noting the absorptivity value of the sample at that wavelength, (4) repeating steps two and three until the absorptivity of the sweat stream sample reaches a value which corresponds to the predetermined oil content of the wax within the sweater as shown by a preestablished correlation between the oil content of the wax and the absorptivity of the sweat stream sample, and (5) then immediately terminating the sweating.

No. 2,721,160. Pesticidal Compositions and Their Use, patented by Jack S. Newcomer, Grand Island, N. Y., assignor, by mesne assignments, to The Pennsylvania Salt Manufacturing Company, Philadelphia, Pa. The patent covers a composition prepared for use in the control of one of the group consisting of microrganisms and insects, comprising a surface active agent, and at least one of the group consisting of 1,2,3,3,5,5-hexachloro-4 - dichloromethylene - 1 - cyclopentene; pentachloro-1-trichlorovinyl - 1,3 - cyclopentadiene; pentachloro-5-alpha, beta, beta-trichloroethyl-1,3-cyclopentadiene; 1,2,3,3-tetrachloro - 4 - dichloromethylene - 1 - cyclopentene; and 1,3,3,5,5-pentachloro-2-trichlorovinyl - 4 - dichloromethylene-1-cyclopentene, said composition forming an emulsion with water upon agitation therewith.

No. 2,720,480. Fungicidal Composition and Method of Using Same, patented by Calvin N. Wolf, New York, N. Y., assignor to Ethyl Corporation, New York, N. Y. Disclosed is a fungicidal composition of a fungitoxicant having the formula

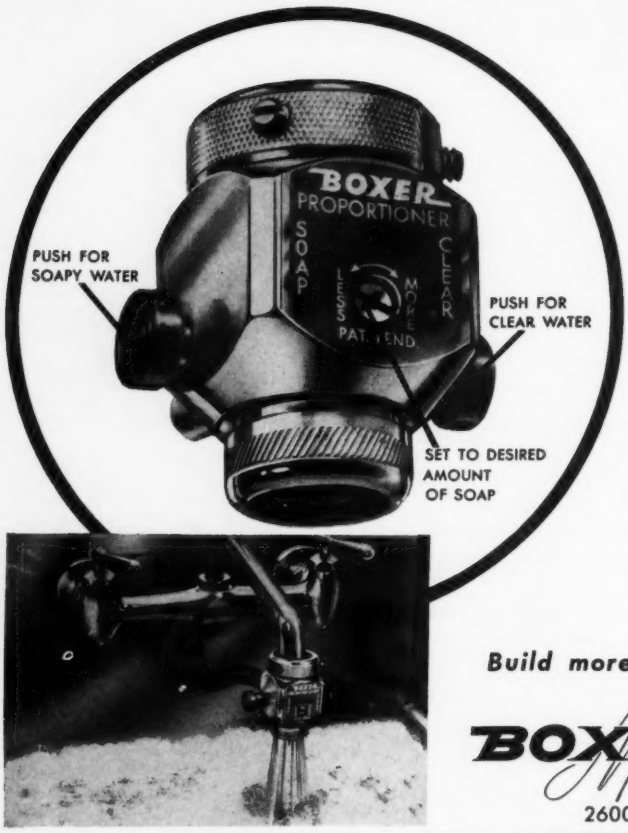


wherein x is an integer from 1 to 2 inclusive, R is selected from the group consisting of a hydrogen and a lower alkyl group and Ar is selecfrom the group consisting of phenyl, diphenyl, naphthyl, anthracyl and phenanthryl radicals and substituted derivatives thereof. Said substituents are selected from the group consisting of aliphatic hydrocarbon, endoaliphatic hydrocarbon, aryl hydrocarbon, nitroso, nitro, amino, chloro, bromo, iodo, hydroxyl, azo, cyano, thiocyano, acyloxy, aroyloxy, and mercaptyl groups as a principal active ingredient, and a dispersing agent.

★

Fluorine Plant for Pennsalt

A new organic fluorine chemicals plant will be built at Calvert City, Ky., by Pennsylvania Salt Manufacturing Co., Philadelphia, it was announced recently by William P. Drake, Pennsalt president. Construction is scheduled to begin at once with full scale operations expected to begin in 1956. Initial products will serve the aerosol propellant and refrigerant fields.



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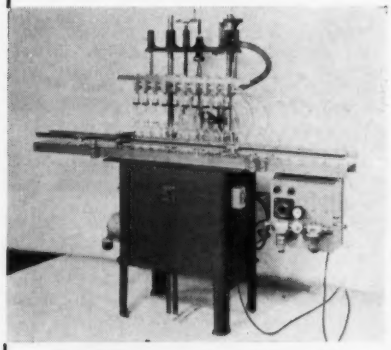
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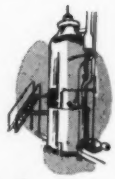
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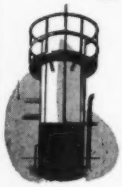
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PRODUCTION Clinic

By E. G. Thomssen, Ph.D.

THE close of the year is the time to think of keeping systematic records for the year ahead. The production man will find it helpful not only to keep and consult company records but to keep a personal diary recording important happenings from day to day.

Within the past year a dramatic illustration of the importance of personal and company records was brought to my attention: A civil court case involving a large sum of money had dragged on for several years. Defendant was represented by three prominent attorneys. The plaintiff had two rather inexperienced lawyers and his chief witness was a chemist. The defendants' position seemed assured until the chemist was called upon to testify. He had kept a complete file on the case covering a period of many years and in addition had written down important details in a personal journal. The defendants had no written records and were unable to refute those kept by the chemist. Their case fell apart and they pleaded guilty.

The importance of record keeping in the production end of a business is less dramatic but equally great. Such records need not all be in writing but may include samples of raw materials and finished products. The label on a product sample should carry formula and *modus operandi.* In developing new products it is good policy to preserve samples which may not appear satisfactory at the time. Frequently the answer to a production or research problem may be obtained by referring back to such previously rejected samples. The shelf life of products can be determined only by referring to samples kept under various conditions simulating those to which the commercial product is exposed before reaching the consumer.

In too many cases formula records are not kept correctly. I have observed several cases where the only person who knew how to compound a product was the production man. In one case this person changed the formulas to suit his whims. This caused constant complaints by users, yet the management had complete confidence in him. Several copies of formulas ought to be on file in factory and office. If a change is contemplated it should be adequately considered by the persons responsible and if approved, it should be recorded.

In recording formulas, *modus operandi* is frequently omitted, which in many cases is just as important as the ingredients and their proportions. Any improvements in processing methods should be recorded in writing. The importance of keeping *modus operandi* records was illustrated in a plant where a certain product had been made by the same processing routine over a period of years. One day an employee confessed he had made an error in compounding the usual 2000-gallon batch. While investigating the presumed error, we referred to our records. We discovered that several years previously we had attempted to follow essentially the shorter procedure the workman had used and discarded it because it did not produce the desired results. However there was one difference: we had not mixed the ingredients, of which there were quite a number, in the same order as this employee had done. We found the finished product he produced an improvement and his procedure a saving in time and labor. By referring to past samples and to records of previous experiments relative to procedure and with new knowledge derived from this fortunate error, we were able to effect considerable economies.

Dr. E. G. Thomssen



These examples illustrate that the keeping of records is profitable. But in other cases records are essential. Statistical records relative to daily production volume, cost inventories, climatic conditions, absenteeism, accidents and similar details should be obligatory. Without these data such important details as the planning of production, profits and keeping quality of raw materials or finished products cannot be determined.

However, factory records can become so cumbersome that they defeat their purpose. Records, to be helpful, must be simple and concise. If they degenerate into red tape they constitute a complication.

Low Cost Ultrasonic Device

ULTRASONIC equipment for chemical processing has become practical by the introduction of low cost, high frequency, rotating generators ranging in size from 2 to 150 kilowatts, recently announced by Acoustica Associates, Inc., Glenwood Landing, L. I., N. Y.

These alternators are capable of supplying power for energizing multiple arrays of transducers generating above audible sound, needed to irradiate materials and products being processed en masse. Favorable results of experimentation can now be extended into full scale plant production.

Ultrasonic processing requires a considerable amount of high frequency power. Economic considerations prevented commercially feasible employment of ultra-



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SHELF LIFE CLARITY

Producing a liquid soap with sparkling clarity is one thing. *Keeping* it that way on the shelf is another. Research shows that almost invariably, the cloudiness that spoils both appearance and profits in liquid soaps, shampoos, and similar products stems from the metallic ion contamination.

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When you add the correct amount of the right Versene (organic chelating agent) compound to the saponification mixture, complete protection against cloudiness is achieved for the life of your soap product. Versene adds many other important advantages, too: lighter color, prevention of rancidity and color change, inhibition of deposition of silica when soap is stored in glass; "built-in" hard water resistance and often, elimination of the chilling process.

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New Midget Dryer

WITH the growing need for drying small volumes of compressed gases to sub-zero dewpoints, Industrol Corp., Roselle Park, N. J., announces the development of a completely new solid desiccant dynamic dehumidifier.

The "Midget Dryer" is offered in three sizes. All of these units are completely automatic, electrically regenerated and of compact design for wall or bench mounting. These units provide low cost, dependable drying for compressed gas systems in a wide variety of industrial and laboratory applications.

Complete data and specifications may be obtained directly from Industrol which also makes a complete line of desiccant type dehumidifiers and filters for compressed gasses.

Inert Flexible Tubing

A NEW line of "Teflon" flexible tubing that is inert chemically, allows no contamination in high purity streams, and is unaffected by corrosive fluids and strong solvents is now available from Pennsylvania Fluoroplastics Co., Philadelphia 4, Pa. The tubing, developed for use in the chemical, petroleum, pharmaceutical and food industries to handle fluids that formerly were considered difficult or impossible to handle, has a service temperature range from that of

liquid oxygen up to 500°F. This flexible tubing is extruded in sizes from 1/8 to one inch inside diameter, and standard wall thickness ranging from 30 mils up through 5/8 inch inside diameter tubing. This tubing is ideal for chemical lines requiring vacuum or medium and low pressures (29 inches of mercury vacuum to 100 psi pressure.)

Larger tubes have heavier walls, and thicker or thinner walls are available on request in any size. The line of tubing can be supplied in all colors for identification of fluid streams. Ferrule type fittings made from Monel, nickel, stainless steel and nylon can be used. "Teflon" fittings can also be used where the fluids should only contact "Teflon" because of chemical attack or contamination.

—★—

Booklet on "Tritons"

A 19-page booklet describing its complete series of "Triton" nonionic surface-active agents was announced recently by Rohm & Haas Co., Philadelphia. Derived from ethylene oxide condensed in varying chain lengths with hydrophobic octylphenol, these surfactants range in solubility from completely water insoluble short chain members to the higher members having excellent solubility in hard water and brines at all temperatures.

The booklet, which bears the title, "The Nonionic Octylphenoxyethanol (OPE) Series," discusses and tabulates data on physical properties, solubility characteristics and viscosity characteristics of aqueous solutions of these "Triton" surfactants. In addition, the booklet presents surface and interfacial tension measurements and data on emulsification tendencies, wetting, foaming and hard surface detergency, all contributing to the superior surface-active properties of the series. Toxicity data on most members of the series are given, and brief references made to quantitative analytical methods.

A list of suggested applications, with a chart matching requirements to products of the series, makes up the final section of the booklet, which is available by writing the company at Washington Square, Philadelphia 5.

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New Auger Filler

Four basic methods of auger filling can be performed by the new "EG-1" universal auger filler described in a folder published recently by Stokes & Smith Co., Philadelphia. A choice of volumetric set-time filling, pressure packing, gross weighing or combination auger-vacuum filling is provided by the new machine. It is said to combine speed and accuracy in the filling of cans, jars, boxes, or bags with granules, powders, or pastes. Up to 30 containers per minute can be filled with from two grams to 10 pounds of material. The bulletin includes information on package size limits and design features, as well as specifications and dimensions of the machine.

J-M Products Handbook

Johns-Manville, New York, published a 52-page brochure last month, entitled "Johns-Manville Product Handbook," describing eleven lines of J-M products. Properties and applications are included in the information given on such items as "Celite" diatomite mineral fillers, filter aids, and synthetic silicates.

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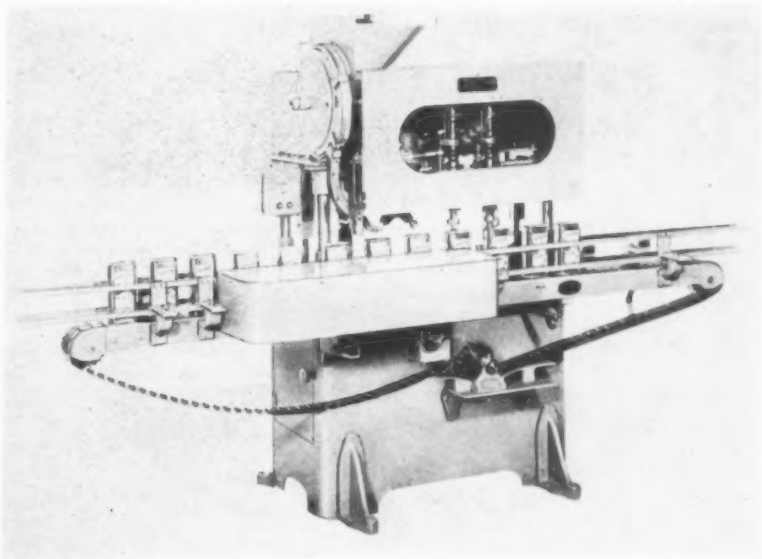
Fisher Catalog Supplement

Fisher Scientific Co., Pittsburgh, recently published a catalog supplement which describes in just over a hundred pages all of the instruments, apparatus, glass ware, laboratory furniture and accessories added to the firm's stocks since the 1952 publication of the major Fisher catalog. The supplement does not list reagents to avoid excessive size. Over 7000 reagents offered by Fisher are carried separately in the *Fisher Chemical Index*.

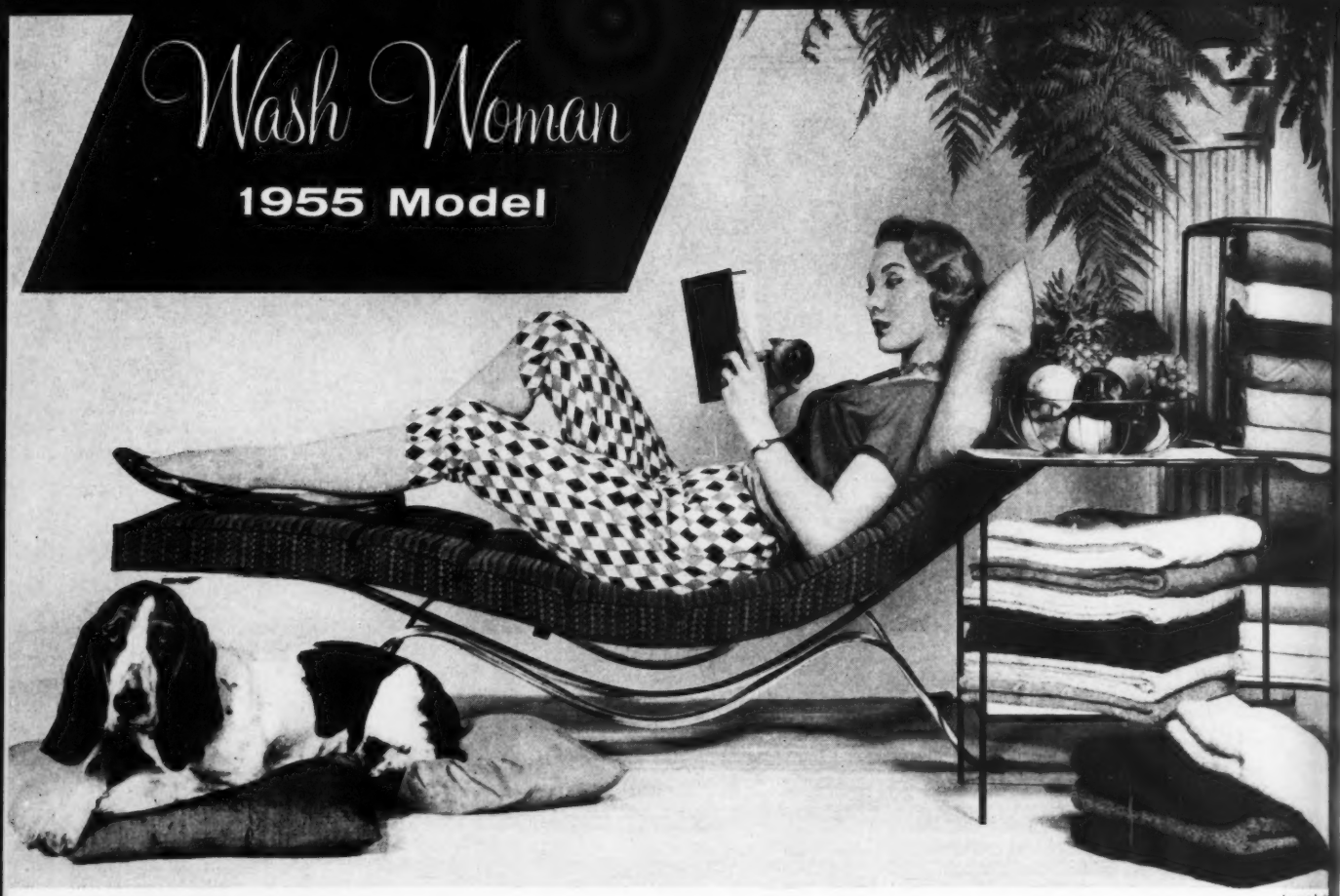
New Can Sealer

A new automatic can sealer was announced last month by Resina Automatic Machinery Co., Brooklyn, N.Y. Speed of the new sealer is 60 cans per minute up to quart size, slower on gallon cans. The standard model handles the usual one inch seal but larger seal models are available. Center-hole cans from pint to gallon sizes and off-center cans up to quarts can be sealed by the machine. The unit weighs about 1500 pounds; overall height is seven feet; conveyor height 33 inches minimum. It is available with one half and one third hp motor.

New automatic can sealer of Resina Automatic Machinery Co., Brooklyn.



Wash Woman
1955 Model



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Is there a detergent problem facing you? If so, use Victor laboratory facilities and counseling service—confidentially and without obligation—to help find a practical solution. And, for a valuable source of reference, be sure to send for the Victafile that tells how Victor Phosphates are used to improve detergency, solubility, water softening, and stability.

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Soap Deterioration

Aerobic bacteria were found to be the cause of dark brown and black stains observed on soap after unusually hot and humid weather. These microorganisms can be grown on a soap glue medium, are spherical in shape, thrive well in air at 90 percent relative humidity, but are adversely affected by light. Discoloration of soap is inhibited by sulfur containing compounds, such as 0.1 percent sodium dithionite or 0.2 percent $Na_2S_2O_7$. The discoloration was observed only on soaps containing traces of iron. Janos Hollo and Jeno Gorog. *Yearbook Inst. Agr. Chem. Technol., Univ. Tech. Sci.*, Budapest, 1952, III-1954 VIII, 181-3, through *Chem. Abstracts*, vol. 49, p. 14352.

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Study of Detergent Action

Visual observations of 0.15 percent solutions of true soap in the presence and absence of added soil (graphite) are reported. An electron microscope was used to examine specimens from which the water had been removed while in the frozen state. Detergent action is described and illustrated with microphotographs. Micellar configurations and the mechanism of detergent action resulting from the microscopic observations are indicated. Charles W. Hock, Hercules Powder Co., Wilmington Del., in *Textile Research J.* 25, 682-5(1955). Through *Chem. Abstracts*, vol. 49, p. 14352.

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Germicide Perfume Effects

A recent study of the effect of hexachlorophene on the odor and especially on the color of 92 perfumery materials showed that the germicide does not affect the original olfactory note. However, it tends to dampen the odor of the perfume materials, especially where hexachlorophene acts as a fixative.

Color of most perfume materials tested was unaffected by hexachlorophene but some were discolored a little. In some instances the discoloration was hardly noticeable and was probably caused by traces of impurities. All the following materials discolored markedly in the presence of hexachlorophene:

Acetophenone, alpha-amyl cinnamic aldehyde, amyl benzoate, benzaldehyde, benzyl benzoate, bornyl acetate, cananga oil, cassia oil, citral, decyl aldehyde, heliotropin, isoeugenol, methyl acetophenone, alpha-methyl ionone, methyl isoeugenol, palmarosa oil, patchouli oil, Singapore, peppermint oil, English, phenylacetaldehyde dimethyl acetal, phenylmethylcarbinylacetate, ylang-ylang oil.

Detailed results of the color tests of each material examined are reported. V. Vasic, Crookes Laboratories, Ltd., in *Mfg. Chemist*, Oct., 1955, p. 458.

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New Defoaming Agent

A new defoaming agent was introduced recently by Foremost Food and Chemical Co., El Dorado Division, San Francisco. Designed for use in polyvinyl acetate based protective coatings, "Eldefoam 400" is claimed to have complete storage stability. Formulations including 0.3 to 0.5 percent of the defoamer are recommended. Samples and particulars are available from the manufacturer at P. O. Box 599, Oakland 4, Calif.

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Syndets in Sewage

The effect of synthetic detergents discharged to streams is among major problems studied at the new water pollution research laboratories opened recently at Stevenage, Herts, England, by the Department of Scientific and Industrial Research. Laboratory experiments have shown that the presence of small amounts of synthetic detergents reduces the rate of solution of oxygen by clean water. Field tests on this subject were carried out in a stream in the Lake District of England where pollution by organic matter or detergent was negligible. A strong solution of sodium sulfate was added to the stream which reacted with the oxygen dissolved in the water. In each experiment addition of the sulfite was continued for an hour and the rate of addition adjusted so as to reduce the level of dissolved oxygen to about ten percent of its initial value. As the water flowed on, it took up oxygen from the air and by sampling at several points downstream and analysing the samples for their oxgyen content the course of reaeration was followed. During the second half hour of each experiment a solution of synthetic detergent was also added and the resulting change in the course of reaeration showed the effect of the syndet on the rate of solution of oxygen from the atmosphere.

A concentration of about one part of active detergent in a million parts of water was used. Agitation was found to have great importance. Where the stream was most turbulent the rate of solution was only slightly reduced, but in less agitated water the same concentrations caused reductions of up to 50 percent in the rate of reaeration.

The laboratory is equipped to study the effect of syndet pollution on fisheries. Toxicity to trout has been determined for water containing measured quantities of mixtures of seven proprietary synthetic detergents. Of trout exposed for a week, some were killed when the concentration of surface-active agent exceeded about six p.p.m. Such concentrations are currently found in some sewage effluents, but exceed concentrations normally found in a polluted river. Work is proceeding to ascertain whether toxicity in a river containing small quantities of other poisonous substances would be increased by the presence of surface-active agents in concentrations known to exist in rivers polluted by sewage effluents.

Treatment at a sewage plant reduces concentration of the syndets in sewage and chemical changes may take place in constituents discharged with the effluent. Experiments are being made to determine toxicity of synthetic sewage con-

(*Turn to Page* 138)

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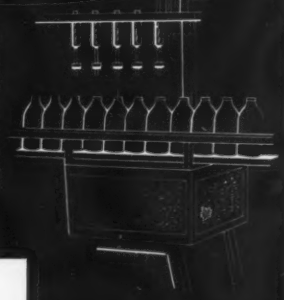
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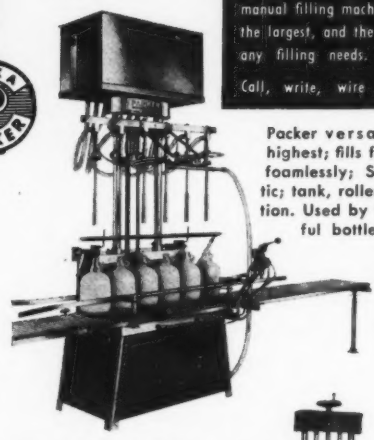


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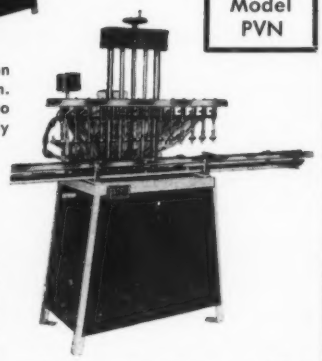


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SOAP PLANT Observer

By John W. McCutcheon

A new process for household soap manufacture was described in *Soap, Perfumery and Cosmetics,* September 1955, pages 1010-1012, and your writer was asked for a few comments thereon. This plant continuously produces Sunlight soap in bar form. The facilities were built by Vickers-Armstrong for Lever Brothers Co., at a cost of about $1,500,000. The process described in S.P.C. is not very impressive, for reasons to be set forth presently.



First let us look at Sunlight soap, the product that launched Lever Bros. Co., a good many years ago. The writer is not too sure of that date, but somewhere back about 1890 would be close. It started off as a by-product of a grocery store business, and soon expanded from the back kitchen into big business. and just grew and grew and grew. The Sunlight bar has had no counterpart on the American market, as far as the writer is aware. Perhaps the closest soap to it would be Fels Naphtha. However, Fels is more highly rosinated and has a slightly lower total fatty acid content. Sunlight contains about 10% rosin in the formula and has a fatty acid content of about 63% or the same as that of a straight kettle soap. Sunlight bars have never appeared on the American scene except in token amounts, but it is produced on a large scale by the rest of the Lever organization. At one time the firm experienced considerable difficulty in maintaining the trade name in China. Everyone, it seems tried to get into the act. Literally hundreds of counterfeit octagonal bars, stamped "Sunlight," flooded the market, some of which were such good imitations that company officials had trouble putting the finger on them! Sunlight bars can be made in a simple fashion by merely drawing the kettle soap to the crutcher, then to frames, followed by slabbing, cutting and stamping in the usual way. The blend of oils provides the soap with a half translucent pale yellow cast which is very attractive. Just walking through the stacks of cut soap and sniffing the air gives one a feeling of cleanliness. One point which may interest Americans is the fact that British practice makes the frame stationary. A trough carries the soap from the crutcher to the frame. German type water cooled presses were tried on Sunlight, but the extent of such use is not known to the writer. It is known however that Sunlight does not respond readily to this treatment, as the pure soap has a tendency to become streaked due to uneven cooling. This point at one time was considered objectionable.

In the present process for making Sunlight, as reported in S.P.C., the four principal steps are as follows: (1) The soap passes over a chilling roll where most of the heat is removed. (2) It is then cut into ribbon form and passed to a five roll water-cooled steel mill of usual construction. The soap is removed from the final roll by means of a crimping scraper. (3) The soap now proceeds to a double plodder. The first one is a blender or refiner which discharges the soap through a perforated plate. A rotary knife cuts the spaghetti-like threads into short lengths. This product is then fed to the bar-forming plodder. To avoid aeration, vacuum of 28 inches is maintained in the chamber between the two plodders. (4) The soft soap is then passed to a cutting table and hence to a weathering tower which is a vertical cooling chamber through which the soap passes on an endless belt. The time in this chamber is reported as 25 minutes. The cut bars are then stamped and wrapped in the normal way.

The above four steps of the process are not very new. Passage over a chilling roll is normal procedure for conversion of any kettle soap to soap flakes. The ribbon strength of the soap is just sufficient to permit passage to the drier. It is quite possible that the process under discussion chills the soap to a greater extent than would be done, say, on Lux, to simplify the second step.

Step two is rather novel. A standard type mill is pressed into unusual service. If the type of Sunlight being made today is the same as that of former years, then the high moisture content of the soap would present a problem. Generally speaking, soap mills at the speeds, ratios and spacing between rolls normally used, are sensitive to the moisture content of the flakes being added. This is usually kept between 12-15 percent. The report in S.P.C. does not discuss this point. We must assume therefore that the mills have been set to these special conditions in some way. A phase change occurs in the soap here, which improves the finished bar. This is quite conceivable as a variety of phase forms do exist for individual fatty acid soaps. However, it is also possible that the phase formed at the mill reverts to the normal phase at the weathering tower! If so, some advantage would be lost, since cooling the soap, if that were all that were required, could be done rather



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easily by means of a mechanical heat exchanger of the "Votator" type. In fact, American practice makes use of the "Votator" for just that purpose.

Plodding, which is the third step, introduces the novel idea of applying vacuum to deaerate the soap. Otherwise, the equipment is identical to series-plodding or cascade plodding where the first two or three plodders refine the soap and the last one forms it into a bar. This procedure has been practiced for years by some toilet soap manufacturers, although very probably Lever Brothers Co. introduced the idea.

The fourth step, the weathering tower, is also known in the soap industry. The writer saw such equipment used for a soft aerated bar soap some ten years ago. The length of time in the tower was also about the same. The soap entered as soft as marshmallow and came out firm enough for stamping. The application of this type conditioner to a deaerated bar of high moisture content would present some serious problems, however, and no doubt a great deal of experimental work was done at Port Sunlight in England.

The writer does not wish to disparage the process just described, and this is indicated to some extent by the amount of space given to its description. Rather, he wishes to present it as a process with some novelty, but which depends principally on up-to-date modern equipment. Incidentally, bar soap must still be selling like mad in England!

Before leaving this subject, soapers might like to be reminded that a built bar soap of the 50 percent fatty acid class can be made continuously by merely passing the soap from the crutcher through a cooling chamber into a bar forming plodder and directly to stamping and wrapping. Such equipment was noted five years or more ago in a mid-west soap plant. For an up-to-date way of doing this, see Meccaniche Moderne equipment as advertised in *Soap and Chemical Specialties.*

* * *

A FEW columns back the writer was taken to task, in a gentle sort of way, on the sulfation of alcohols by means of Sulfan, General Chemicals' trade name for stabilized SO_3. It was pointed out that in no case could Sulfan be used where color was important, since the reaction was so violent that some charring was bound to occur. Well, the writer hardly knows how to answer this, except to state again, that SO_3 is being used to produce fatty alcohol sulfates that are going into cosmetic preparations. The color would just have to be satisfactory! The writer hopes to take this matter up at some length very shortly and will present such evidence as can be made available.

* * *

SEVERAL months ago a few comments were made regarding sequestering action of certain chemicals with respect to tooth decay, and it now appears from recent research that decay is not due to acid mouth but to the presence of organic sequestering agents which may be encouraged to form when the mouth is *not* acid. The principal exponents of this theory are Drs. A. Schatz and J. J. Martin. A paper presenting this point of view appeared under the rather formidable title "Speculations on Lactobacilli and Acid as Possible Anti-caries Factors," *New York State Dental Journal,* vol. 21, #8, pp. 367-379, Oct. 1955. See also C. F. Brodeckers remarks, ibid, pp. 403-4. These observations indicate that toothpastes on the alkaline side do not necessarily check tooth decay when they counteract "acid mouth."

— ★ —

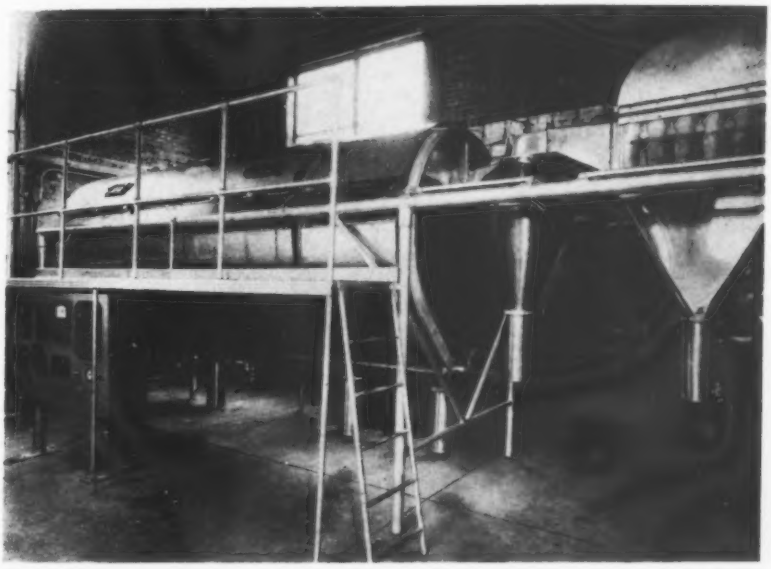
Horizontal Spray Dryer

Installation of a pilot plant size spray dryer of horizontal type with nozzle atomization was announced recently by Buflovak Equipment Division, Buffalo, N. Y., of Blaw-Knox Co., Pittsburgh, Pa. The unit will be used for the development of spray drying techniques for chemical and related materials. Three special features are claimed for this dryer: flexibility in application to products which can be atomized through a nozzle; head room requirements not exceeding that normally available in industrial plants; and ease of cleaning which cuts maintenance costs and time.

Flexibility of operation is provided by variability of air flow, nozzle pressure, spray pattern, and other adjustable operat-

(*Turn to Page* 138)

New pilot plant size Buflovac horizontal spray dryer



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HYONIC FA 75 1%		Sodium Tripoly-phosphate .. 5%
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(a 100% active nonionic alkylolamide)

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SOME TYPICAL FORMULATIONS

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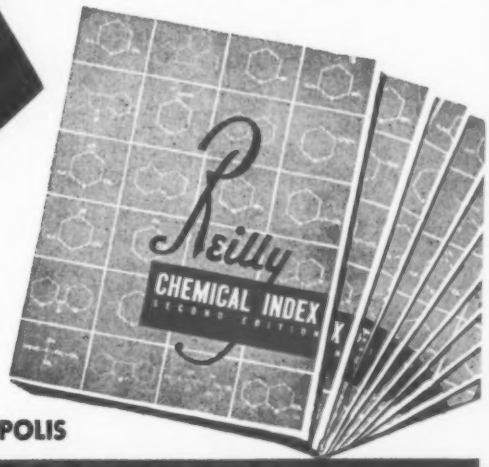


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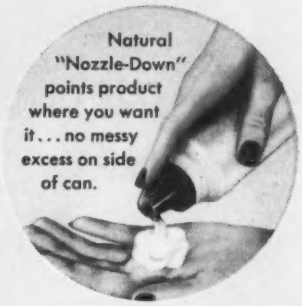
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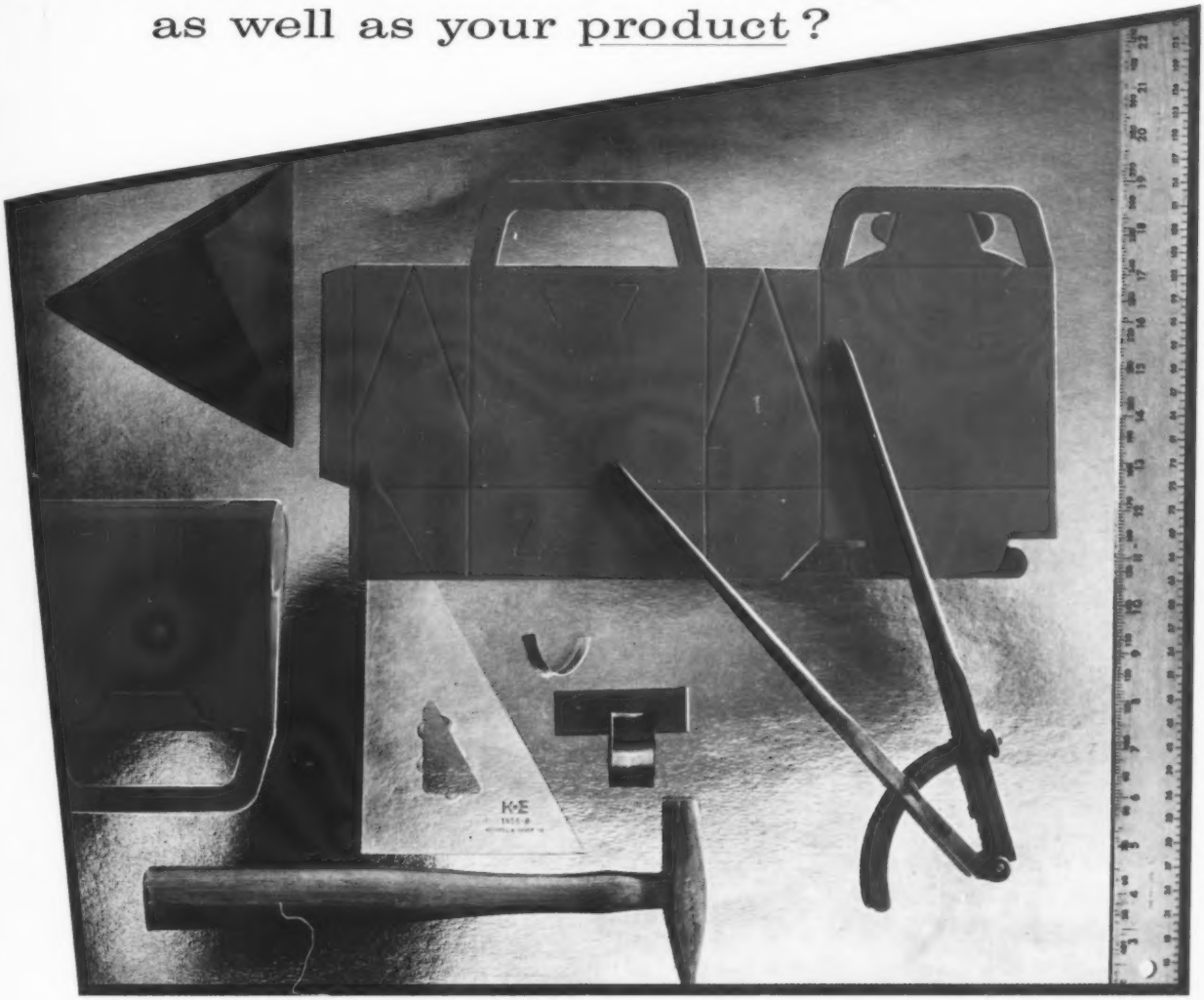
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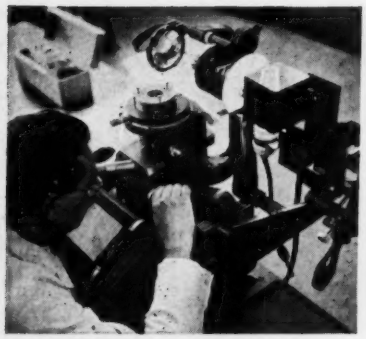


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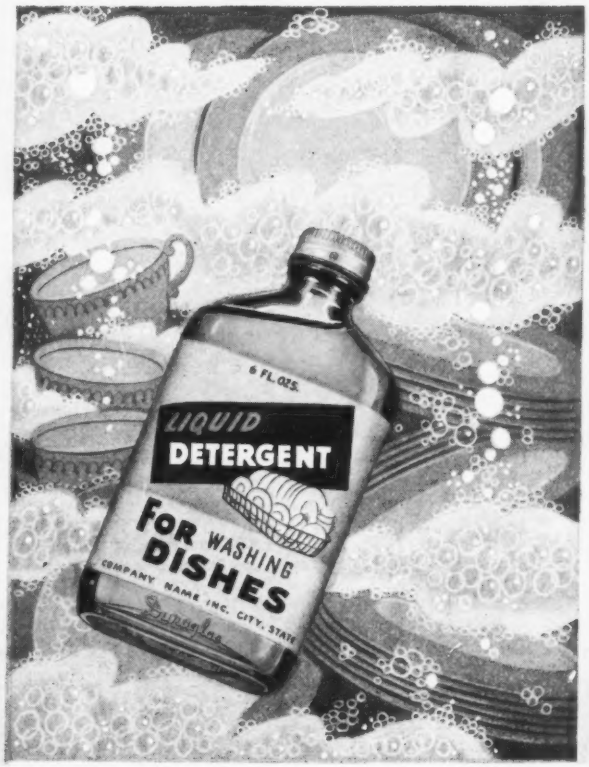


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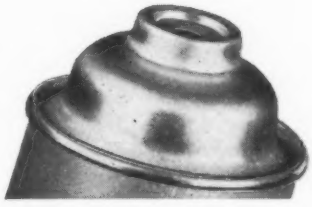
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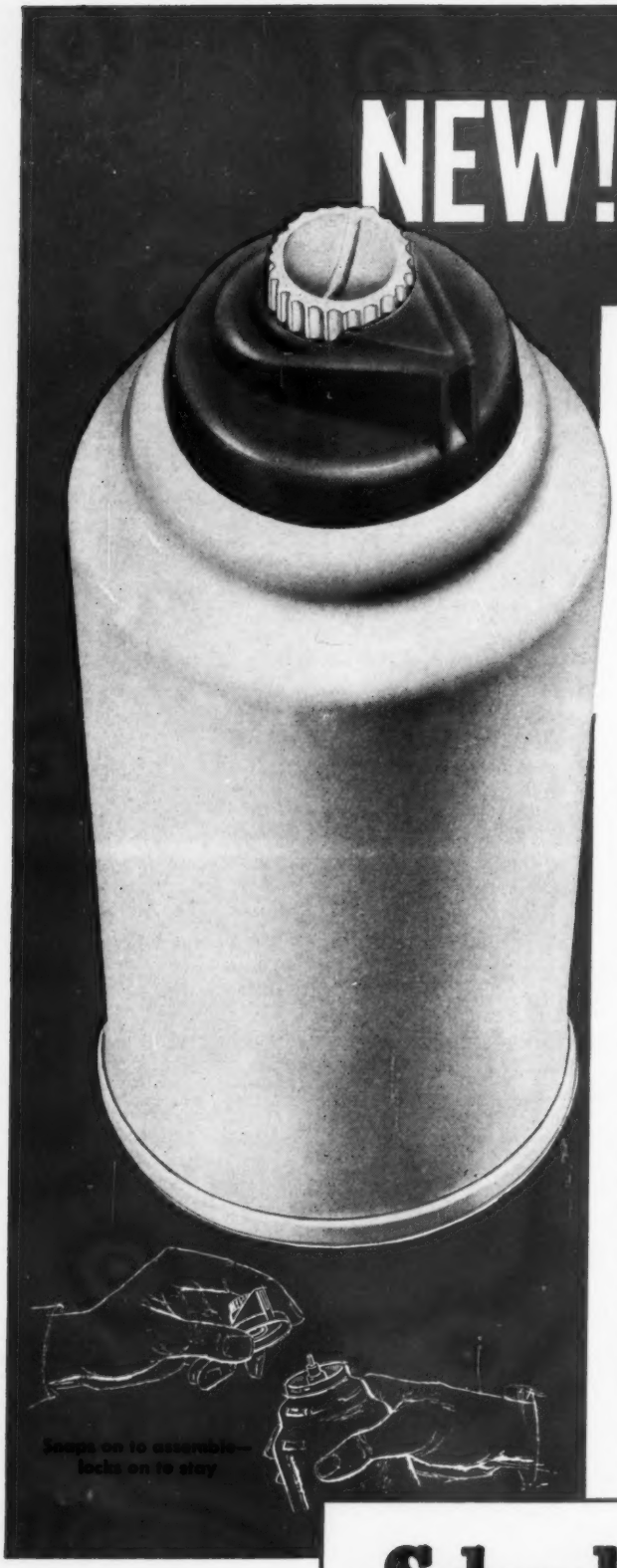
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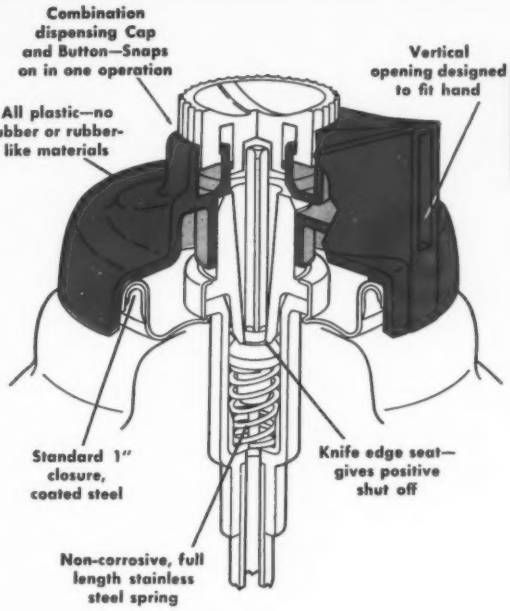
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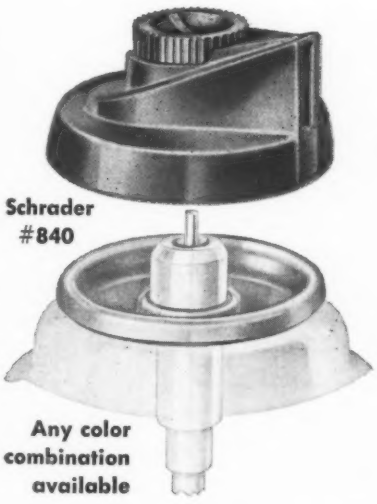
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I am interested in full information on your PRESFOAM VALVE

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Company_____

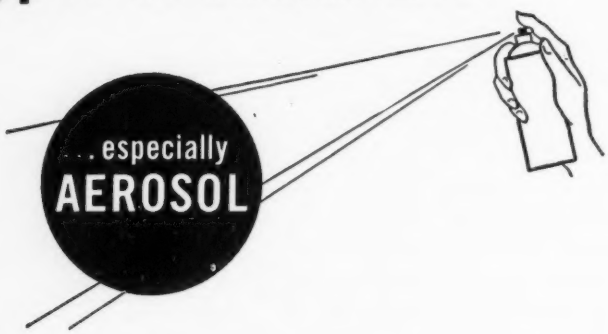
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A New Company—



Modern plant (50,000 sq. ft.) formerly occupied by Hegeler Zinc Co. . . . completely renovated and fully equipped with the latest in filling and packaging lines. Serviced by C.C. & St. L. (N.Y.C.), C. & E. I., and Wabash Railroads.

Offering a new service in contract filling all types of containers





ORGANIZED BY MEN OLD IN EXPERIENCE

Left, Harry E. Peterson, president; right, Robert J. Peterson, vice-president. Both have long held similar positions and responsibilities in the filling industry.

With a modern, well-equipped plant going into full-scale operation, we are ready to serve you as a contract filler experienced in handling both pressurized and liquid-type filling . . . and we are prepared to give you *immediate service.* We follow your formula exactly and fill the containers according to specifications. You need not invest a penny in equipment or personnel; we can take care of all filling, storing, shipping. Why not write, wire or 'phone for complete details?

PETERSON *Filling and Packaging* Co.

HEGELER LANE • • • DANVILLE, ILLINOIS

Packaging NOTES

Kiner in New Post

William R. Kiner has been appointed manager of drug and cosmetic sales in the New York district for the glass and cork closure division of Armstrong Cork Co., Lancaster, Pa., it has been announced recently by Roger H. Hetzel, general sales manager of the division.



William R. Kiner

Prior to his appointment to this newly created post Mr. Kiner had served Armstrong in various sales capacities for the past 29 years. He has worked in the New York area since 1946.

—★—

George Ball Dies

George A. Ball, 92, last of four brothers who developed Ball Brothers Co. in Muncie, Ind., died on Oct. 22. Mr. Ball was 82 when he became president of the glass jar manufacturing concern in 1944. After three years he passed the presidency to a nephew, Edmund F. Ball, and became chairman of the board.

—★—

Bennett Lined Containers

Standard size steel pails and drums featuring phenolic, epon, and vinyl resin linings were introduced recently by Bennett Industries, Inc., Peotone, Ill. The range of products packageable in steel includes detergents, insecticides and other hard-to-package substances, provided the correct "hi-Bake" lining is selected. Bennett has published an illustrated folder describing the new line of containers.

—★—

Tape for Bag Repair

A pressure-sensitive paper tape was introduced recently by Behr-Manning, Division of Norton Co., Troy, N. Y., for repairs on multi-wall bags. Made in 60 yard rolls #131 "Behr-cat Flatback" tape has a tensile strength of 45 pounds and adhesive grip of 65 ounces per inch of width. The two inch or three inch width is recommended for the multi-wall bag mending job.

—★—

Gair Reassigns Sales Execs.

Appointments of O. R. Gibbons and Charles M. Hayes as assistants to the eastern and western folding carton sales managers, respectively, of Robert Gair Co., New York, were announced last month by J. C. Hendricks, national sales manager of the folding carton division. Eastern sales manager with headquarters in New York is Wray H. Callaghan. C. A. Colbert is western sales manager with headquarters in Chicago.

With Gair since 1945 Mr. Gibbons was sales manager in the New York office, prior to his recent advancement. In this position he is succeeded by Joseph Hanousek, who started with Gair in 1930.

Mr. Hayes joined American Coating Mills, now a division of Robert Gair Co., in 1947. Before this appointment he was purchasing agent of the Elkhart, Ind., division.

Mr. Hanousek's former position as sales serveice manager of the cartons division in Piermont, N. Y., has been taken over by Pierre M. Anderson, with Gair since 1943. Previous to his new appointment he was on the sales staff of the division.

C. M. Hayes



O. Gibbons



J. Hanousek



P. Anderson





Jack E. Irwin, above, of the Brockway Glass Co., Brockway, Pa., who has assumed duties as district manager of the company's Cleveland office. Mr. Irwin was formerly with the sales department of the company's home office.

Low-Pressure Polyethylene

Polyethylene of improved rigidity, appearance, strength and heat resistance and reduced fluid permeability will be made by Hercules Powder Co., Wilmington, Del., at a $10,000,000 plant in Parlin, N. J., it was announced recently. The company disclosed that it has been licensed to make high molecular weight or so-called low-pressure polyethylene by the process developed by Karl Ziegler of the Max Plank Institute, Muelheim, Germany. Although the new facilities with a capacity of 30 million pounds a year will not be completed until late next year Hercules will be able to start distribution of

1-1½-2-2½-3-3½-4-5-6-6½-10-12

gallon capacities
—ALL these SIZES

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Shipments—
of all Trade Styles



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Protective Linings



Available with any style drum or pail for edible or "hard-to-hold" products. Linings are specified and repeatedly tested by our laboratories, and are applied only under the control of scientific instruments.

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available commercially

Glyco's ethylenediamine tetraacetic acid (EDTA) and its salts—the TETRINE®S—are the purest forms available commercially, from a new plant specially designed to make these sequestering agents.

Effective against a wide range of di- and tri-valent metal contaminants, Glyco's EDTA and salts are stable to storage and to all temperatures and pHs commonly encountered. They chelate efficiently in high concentrations and extreme dilutions of metal ions.

These are some of the industries using Glyco's EDTA:

Textile	**Germicide**
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Our plant, products, personnel—all are geared to the elimination of your contaminant troubles. Send for samples and our catalog *The TETRINE®S.*

*Send for analysis report.

the **TETRINE®S**
Glyco's EDTA

GLYCO Products Co., Inc.

Empire State Building, New York 1, N. Y.
NONIONIC SURFACTANTS • SYNTHETIC WAXES • EMULSIFYING AGENTS

the material on small tonnage scale at the beginning of 1956. This introductory material will be obtained under an arrangement with Farbwerke Hoechst A. G., in Germany which also calls for continuing exchange of research information. Hercules calls its new plastic "Hyfax." The cellulose products department will be responsible for production and sales of the product.

— ★ —

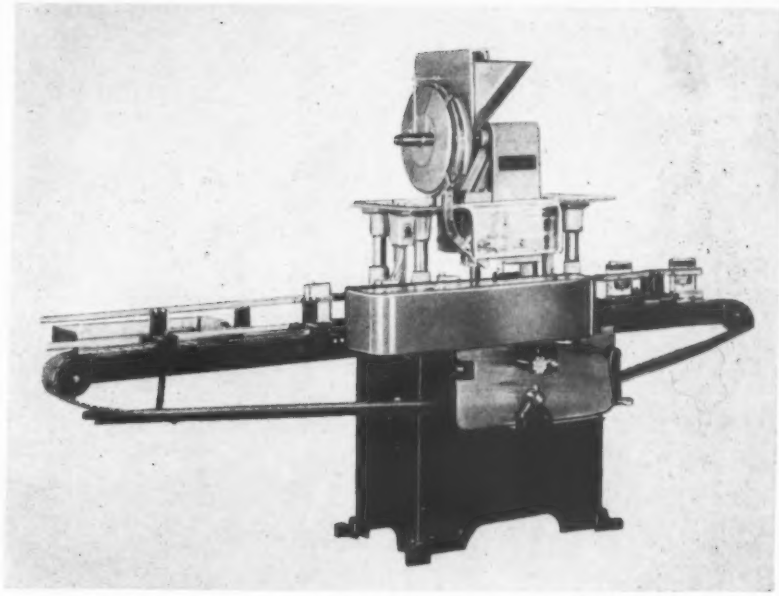
Automatic Innersealer

Resina Automatic Machinery Co., Brooklyn, N. Y., recently announced a new automatic innersealer. The machine sorts, feeds, and applies innerseals to rectangular tin cans. Capacity ranges from 60 to 120 seals per minute, depending on the size of the container. Varispeed drive, a can spanning device, and a one half hp. motor are features of the unit which requires three steps for operation: loading of the hopper, adjustment for can size, and throwing switch to start. The innersealer is designed to work with all standard filling machines and can be installed in existing lines where cappers are already available or supplied in tandem with new cappers. Weighing approximately 900 pounds the machine is seven feet high and the conveyor height is about 33 inches.

— ★ —

Portable Liquid Leveler

A new portable electronic liquid leveler was introduced recently by Blue M Electric Co., Blue Island, Ill. Said to maintain a level constancy of bath media within plus/minus 0.046 inches, the unit is applicable to all open liquid containers and operates in any electrically conductive light. It includes electronic relay, high and low level stainless steel 18-8 probes, solenoid valve, 36 inches of nickel plated copper tubing and brass needle valve. The electronic relay is thyratron actuated. Three micro-amp current produces a positive action. The probe circuit is isolated from line voltage through a transformer. Power failure or a tube burnout automatically cuts off the relay. The unit operates on 115 volts 50/60C. A. C., is designed for use in the laboratory, pilot plant, or production.



New automatic innersealer of Resina Machinery Co., Brooklyn, for sorting, feeding and applying innerseals to rectangular tin cans.

— ★ —

New Bradley Syndet Can

Special interest by the liquid detergent industry is claimed for a new low-cost squeeze-to-use polyethylene can introduced November 1 by Bradley Container Corp., Maynard, Mass. Addressing the Drug and Pharmaceutical Seminar of the 17th Annual Packaging Institute Forum at the Hotel Statler New York, Bradley Dewey, president of the firm, announced the new "Bracon 2ME" container and a new internal barrier coating for polyethylene for the packaging of tooth pastes and cosmetics without flavor or odor dissipation.

The new container comes in capacities ranging from six to 32 fluid ounces. Made from a heavy extruded tube of polyethylene it is closed top and bottom with metal ends which are seamed or crimped to make a mechanical joint with the polyethylene. The container dispenses liquids or lotions such as detergents, and can also be made to atomize powders and to spray liquid vapors. In the center of the top plate is a circular opening for filling, which is closed by a polyethylene dispensing plug. The insert plug has a captive closure, enabling the user to remove and replace cap with a finger of the hand that is holding the container. For liquid detergents automatic filling equipment with reduced vacuum can be used. The dispensing plug is then inserted for a positive snap fit and permanent seal. For powders the "2ME" has been designed for filling through an enlarged orifice in the bottom. After filling, a metal plate or cover is rolled over the orifice. The cover is removable by the user making the containers refillable with insecticides, herbicides, etc. To atomize powders in a cloud or burst that carries some distance a semi-rigid capillary tube feeds the powder from the bottom of the container to the orifice. For spraying a substance such as a liquid insecticide, a window cleaner or white wall tire cleaner, the "2ME" uses a flexible capillary tube and dispenses by squeeze-to-use action.

The "Bracon C-1" internally coated tube has been found successful in packaging three out of four products found not suitable for straight polyethylene containers, Bradley reports. Bleed-through,

(*Turn to Page* 113)

WHAT'S



"Stride," new self-polishing liquid floor wax of S. C. Johnson & Son, Inc., Racine, Wis., is being marketed in round can with dripless spout. Product comes in pints, quarts, half-gallons and gallons to retail for 69 cents; $1.49; $2.59, and $4.69, respectively. Company claims "Stride," which is formulated from hard, natural waxes, will not waterspot, can be buffed to renew gloss, and is long wearing.



New label for 22 ounce institutional size container of "Ajax" was announced recently by the industrial department of Colgate-Palmolive Co., Jersey City, N. J. New foil label, which is predominantly red, features gold outlines around letters in words "Ajax" and "Foaming Cleanser."



New king size can for "Frosty Snow" Christmas decoration aerosol of U. S. Packaging Corp., Bridgeport, Conn., comes in 16-ounce pressure container of American Can Co., New York. Can features a closed top with one-inch cup opening and overcap and stacking bottom. Package includes pink as well as red, white and blue snow. A decorating kit with 20 stencils is given free with each can of snow.

NEW?



The complete line of Acqua Lina Manufacturing Co., Brooklyn, now includes washing fluid, bluing, liquid starch and ammonia. Because of expanding sales and distribution the firm announced that it plans to handle all filling operations by automation. The 25 year old line was originally marketed to New York Italian families. Through supermarket distribution non-Italians have become familiar with the product during special promotions, which have increased sales.



In integrating its nationwide "Greatest Show on Worth" advertising with promotion at point-of-purchase for its line of toiletries Colgate-Palmolive Co., Jersey City, N. J., recently used this unusual and striking corrugated floor stand. The stand was produced by the display division of Gibraltar Corrugated Paper Co., Clifton, N. J., with lithographed material supplied by Kindred MacLean and Co. The colorful and detailed circus theme was achieved by rubber plate printing of six high gloss colors by the "Varnicolor" process on snow-white corrugated board.

The circus effect on the front and back of the floor stand is further enhanced by the use of Kindred-MacLean's five lithographed danglers illustrating Colgate products, by candy striped poles and by a lithographed copy panel. The stand features a new type of one-piece construction which eliminates interior supports and simplifies the dealer's problem in setting up the display.



New Christmas package for "Happy Shaving" features "Aero Shave" aerosol lather dispenser and "Aero" after-shave lotion, both by Boyle-Midway, Inc., New York. Units are combined in red and white striped candy stick tubular gift carton to retail for $1.29, plus four cents Federal excise tax. Wrap has Santa Claus label with space for gift inscription.

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There's a world of difference between Bennett Protected and ordinary hi-bake lined pails. *It's the way they are made that counts.*

PAIL EARS . . . Bennett projection welded ears eliminate rivet crevices, a common point of failure in ordinary hi-bake pails.

SIDE SEAM . . . Bennett pails have the smoothest side seam in the industry. Free from heavy overlap and weld spatter.

BOTTOM CHIME . . . Bennett Hi-Bake Linings go all the way *through* the bottom seam or chime.

BAKING CONTROL . . . The crux of all hi-bake linings. Bennett has the latest type ovens with tolerance limits that insure a perfect product.

THOROUGH INSPECTION . . . Bennett gives your product double protection . . .



FIRST with carefully inspected, correctly applied hi-bake linings.

SECOND with *pretested* containers and superior workmanship, the result of over 40 years of experience in steel container manufacture.

Call Bennett today for help on the type of hi-bake lined pail best for your specific product. We supply lined pails for your own tests without obligation.

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RUETERG

A classification of a series of Alkyl Aryl Sulphonates.

RUETERG 97S — Liquid, 88% active. High foam stability. Excellent detergency. 1% free oil—2% water.

RUETERG 57M — Liquid, 42.2% active. Excellent resistance to hard water.

RUETERG 40T — Low Cloud point, light color. 27% active.

RUETERG SULPHONIC ACID — Concentrated Alkyl Sulphonic Acid, 70% active. Raw material for producing liquid detergents.

RUETERG 40U — Liquid, 26% active. High Cloud point. Low price.

TAURANOL

A series of synthetic detergents produced by the reaction of various fatty acids with organic sulfonates.

TAURANOL MS — Oleic Acid Base-White slurry form. 45.8% active.

TAURANOL ML — Oleic Acid Base-Clear liquid. 33% active.

TAURANOL MG — Oleic Acid Base-Popular, clear, heavy gel. 18% active.

Other TAURANOLS derived from Coconut, Tallow and refined Tall Oil Acids.

SULPHONATED OILS — Olive, Sperm, Castor, Peanut, Red, Linseed and Tall.

Write or phone for technical bulletins on each or any of these products. Special bulletin issued on *Emulsifying With RUETERG 97S*, including formulations for solvents, animal, vegetable and mineral oils for general cleaners and others. Price quotations submitted upon request.

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Manufacturing Chemists

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collapse, and oxygen transmission are eliminated and essential oil permeation decreased. Certain complex organic solvents, volatile solvents, and some aromatics and aliphatics remain unpackageable in "Bracon" tubes.

Coated tubes and bottles are currently being made with orifices of at least three mm in diameter. Long nose tubes, atomizing packages, and "Unidrop" dispensers are not included.

—★—

Hoskins in New Post

John W. Hoskins, attached to the Chicago sales staff of F. B. Redington Co., Chicago, for several years, has been appointed eastern sales representative it was announced recently. His office is at 20 Crest Hill Road, Verona, N. J., telephone Verona 8-4608. Hamilton Allport, Jr., who had been in charge of the firm's eastern office for the past four years, has assumed new responsibilities at Redington's recently completed plant located in Bellwood, Ill.

—★—

Steel Container Merger

Agreement on terms of a contract providing for purchase of Cleveland Steel Barrel Co., Cleveland, by Inland Steel Co., Chicago, was announced last month. Consummation of the arrangement is subject to clearance by the appropriate government agencies. The transaction would represent a 20 percent expansion of Inland's container division, according to Joseph L. Block, company president. L. B. Hunter, president of Inland Steel Container Co. Division, said the purchase would broaden his firm's product line by the addition of barrels of heavier gauge than now produced and of stainless steel barrels and pails.

Inland plans to retain the personnel now running Cleveland's operations. Harold P. Finney, president of Cleveland, will serve in a consulting capacity. Robert O. Brannan, vice-president in charge of sales, will continue in that capacity for the area served by the Cleveland plants.

Drum Ass'n Moves

The National Barrel and Drum Association announced recently removal of its offices to the Associations Building, 1145-19th Street, N. W., Washington 6, D. C. The telephone number is unchanged: REpublic 7-1972.

—★—

Gair Names Three

Appointments of Harvey Hearl, J. O. Pedersen, and Richard W. Lindquist to new sales management positions in the folding carton division of Robert Gair Co., New York, were announced last month by C. A. Colbert, western sales manager of the division.

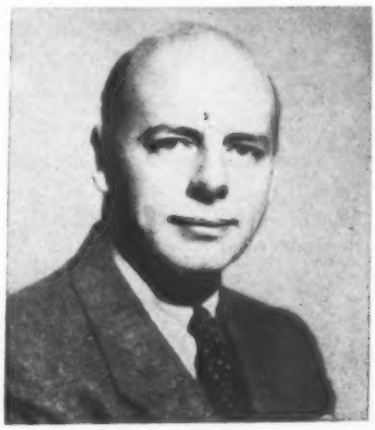
—★—

PI Officers and Board

At the 17th annual forum of the Packaging Institute held in New York on Oct. 31, the following slate of officers was appointed for 1956: Herbert T. Holbrook, Standard Packaging Corp., New York, president; E. H. Balkema, Colgate-Palmolive Co., Jersey City, N.J., vice-president; A. Douglas Murphy, Esso Standard Oil Co., New York, vice-president and treasurer; Charles W. Kaufman, Kraft Foods Co., Chicago, vice-president; and Charles A. Feld, executive director.

Reelected to serve as directors were: E. H. Balkema; W. E. Broander, Jr., Scandia Manufacturing Co., North Arlington, N.J.; W. E. Coughlin, Pneumatic Scale Corp., North Quincy, Mass.; R. J. Dahl, E. R. Squibb & Sons, Div. of Olin Mathieson Chemical Corp., New York; Walter F. Daley, New Haven Board & Carton Co., New Haven, Conn.; E. F. Dival, Corn Products Refining Co., New York; Frank Greenwall, National Starch Products, Inc., New York; Herbert T. Holbrook; Charles W. Kaufman; Harold Mosedale, Jr., Package Machinery Co., Springfield, Mass.; A. Douglas Murphy; S. E. Noble, Chattanooga Medicine Co., Chattanooga, Tenn.; T. A. Torrence, Aluminum Co. of America, Pittsburgh, Pa.; and Roger V. Wilson, Continental Can Co., New York.

Herbert T. Holbrook



Newly elected directors are: D. R. Grant, Beech-Nut Packing Co., Canajoharie, N.Y.; John W. LaRocque, American Flange & Manufacturing Co., New York; C. F. Schokmiller, Grove Laboratories, Inc., St. Louis, Mo.; and R. M. Shultz, National Biscuit Co.

Director ex-officio is F. S. Leinbach, Riegel Paper Corp., New York.

Optical Brighteners

(*From Page* 60)

ing agents eminently suitable for the detergent industry from among the dibenzimidazole derivatives which it discovered and developed in the years 1942- 1954 and included them in its Uvitex* range.

Finally, the author would like to thank the management of Ciba, Ltd. for permission to publish this paper, and Prof. Dr. Ch. Gränacher, for valuable advice and suggestions.

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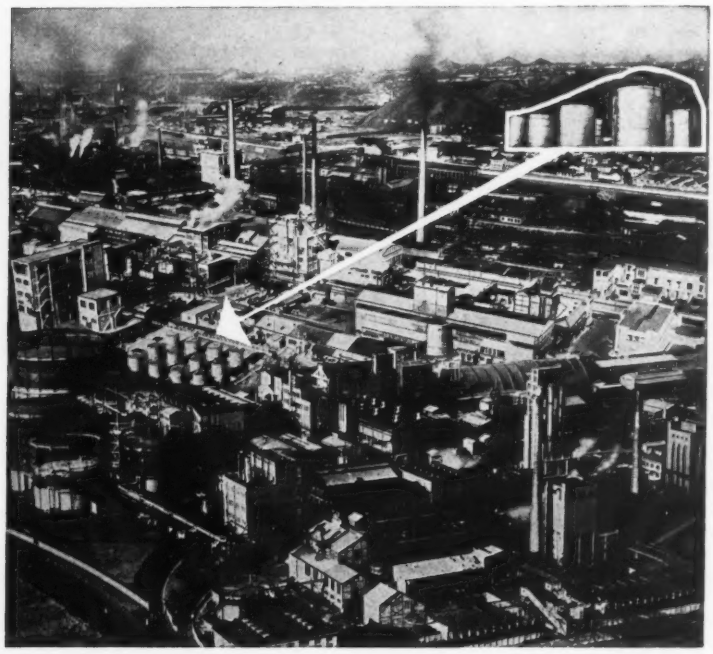
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E. C. Caspar, *Melliand Textilber 33,* 518 (1952)
10.) For this work I am indebted to Dr. W. Geigy and Mr. E. Weber

*Registered trade mark

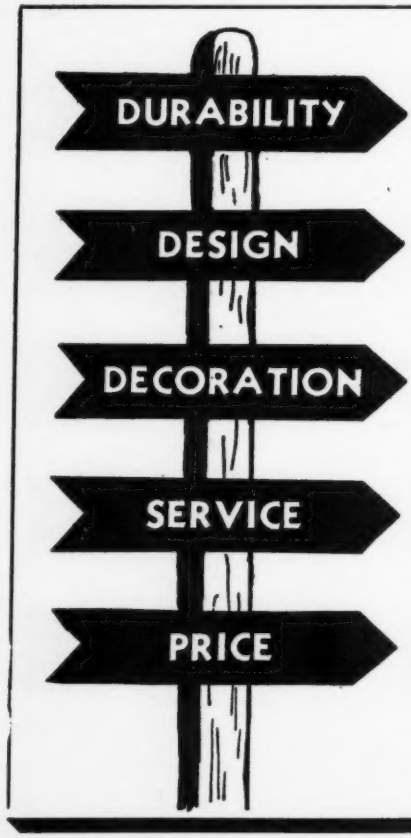
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No costly interruptions with Eastern's service — shipments arrive when and where you specify.

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Absolute Oakmoss	A good grade of oakmoss made from selected French moss — great purity — for standard perfumes.
Resinoid Oakmoss #1	Made with the same raw material used for our Absolute Oakmoss A but less refined — for colognes.
Resinoid Oakmoss #2	The same character found in our Resinoid No. 1 but with more impurities and stronger. This quality is recommended *only* for soap.
Saporesinoid Oakmoss . . .	Especially designed for soap-making at a moderate price. This Resinoid is made of a more solid substance than preceding listed products.

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New J & L Container Plant

A new plant making 55 gallon containers of 18 and 16 gauge steel, of tight head and open head types, was opened recently at Port Arthur, Texas, by the Container Division of Jones & Laughlin Steel Corp., Pittsburgh. The new building, with approximately 40,000 square feet of floor space, replaces another plant operated by J & L since 1940 at the same site. The old building will be used for storage purposes. Speakers at the dedication ceremony included, among others, C. L. Austin, president; J. E. Timberlake, vice-president—sales; and C. K. Hubbard, general manager of the container division which has headquarters in New York.

The plant supplies containers to the chemical, oil, and related industries in Texas. Its production line is automatic. Among the newest facilities is a five-stage phosphatizing unit built to J & L specifications for the process known as "JaLizing," which provides the drums with a conditioned protective surface. Adherence and durability of painted and lacquered surfaces are increased by this process which also provides an inhibiting surface which prevents the creeping of rust and provides a non-conducting bond between bare metal and paint.

Located along the main line of the Southern Pacific Railroad, the plant features a conveyor system outside the building on which the completed drums travel directly to box cars to be loaded.

—★—

Canco Reassigns Alwyn

T. E. Alwyn, former vice-president in the executive department of American Can Co., New York, has been appointed vice-president in charge of operations in the Atlantic division, it was announced last month by William C. Stolk, Canco president. Mr. Alwyn started with Canco 31 years ago as sales trainee in Philadelphia, where he later became district sales manager. Following his transfer to New York in 1936 he was successively a commodity manager, assistant manager of sales, manager of sales in the Atlantic division and in 1950 became general manager of



T. E. Alwyn

sales. In 1951 he was elected vice-president in charge of sales and two years later vice-president in the executive department.

—★—

Armstrong Names Two

Austin M. Browne has been named to the newly created post of manager of market development for the glass and container division of Armstrong Cork Co., Lancaster, Pa., it was announced recently by Roger H. Hetzel, general sales manager of the division. Prior to his new appointment Mr. Browne served as district manager of the firm's glass and closure office in Detroit. He has been with the firm since 1935.

Paul W. Triplett succeeds Mr. Browne as manager of the Detroit district office. With Armstrong since 1947 Mr. Triplett has been a member of the sales staff of the Atlanta District office since 1950.

—★—

Record Tube Shipments

Shipments of collapsible metal tubes totalled 744.5 million units in the first nine months of this year it was reported recently by the Collapsible Tube Manufacturers Council. This compares with 722.4 million units in the corresponding nine months of last year, and with the previous nine-months high of 733.8 million units set in 1953.

Plax Polyethylene Linings

The commercial availability of linings for polyethylene squeeze bottles, which makes it possible to widen their range of applications, was announced Nov. 9 by Plax Corp., Hartford, Conn. The new linings coat the inside of plastic bottles and thus isolate the ingredients from the walls of the container, preventing wall greasiness and distortion. Thus it is now possible to package oils and greases in polyethylene bottles.

Also announced were new types of polyethylene bottles that can withstand temperatures required for sterilization.

Shatterproof plastic bottles that are suitable for packaging aerosol dispensed products have been developed in the Plax laboratories, it was revealed.

Participating in the conference, held at the Savoy-Plaza Hotel, New York, Nov. 9, were Robert F. Elder, executive vice-president of Plax; Robert A. Glaenzer, vice-president in charge of sales; C. Paul Fortner, vice-president, research and development; C. N. Sprankle, sales manager, film and sheet division, and John W. Carlile, market development manager.

—★—

Represents U. S. Bottlers

U. S. Bottlers Machinery Co., Chicago, manufacturers of liquid filling and container cleaning equipment, recently appointed H. W. Clowe and Co. to represent them in the states of Mississippi and Louisiana. Clowe has headquarters at 128 Duncan Ave., Jackson 5, Miss., headed by H. Wyatt Clowe.

—★—

Bradley Moves N. Y. Office

Bradley Container Corp., Maynard, Mass., manufacturer of "Bracon" plastic tubes and bottles, has moved its New York office to a larger space at 655 Madison Avenue, it was announced recently. E. W. Smith III is in charge of the regional office.

SEASON'S GREETINGS



Wishing all of

our friends and customers

a Very Merry Christmas

and

a Happy New Year

GEORGE LUEDERS & CO.

427-29 WASHINGTON STREET NEW YORK 13, N. Y.

Branches: Chicago, San Francisco, Montreal

REPRESENTATIVES: Shreveport, La., Toronto, Canada, Winnipeg, Canada, Waukesha, Wisc.

One of America's Pioneer Importers and Manufacturers of Essential Oils and Aromatics



NEW Trade Marks

THE following trade marks were published in recent issues of the *Official Gazette* of the U. S. Patent Office in compliance with section 12(a) of the Trade Mark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the Gazette. See rules 20.1 to 20.5. As provided by section 31 of the Act, a fee of $25 must accompany notice of opposition.

Skram—This for insect repelling spray lotion. Filed Sept. 14, 1954 by Magna, Inc., Bensenville, Ill. Claims use since June 16, 1953.

Hot Shot—This for liquid insecticide. Filed Dec. 16, 1954 by R-H Products Co., Memphis, Tenn. Claims use since June 15, 1950.

Tuco, Opco—These for fungicides and insecticides. Filed Jan. 21, 1955 by Upjohn Co., Kalamazoo, Mich. Claims use since Oct. 8, 1954, on both.

Young Folks—This for shampoo. Filed May 6, 1954 by Richard Hudnut, New York. Claims use since Apr. 28, 1954.

Raze—This for paint remover. Filed Aug. 12, 1954 by Du Bois Co., Cincinnati. Claims use since July 14, 1954.

Pintoff—This for liquid paint, enamel and varnish remover. Filed Aug. 18, 1954 by International Paint Co., New York. Claims use since Nov. 15, 1904.

Diamond Sparkle, Silver Sparkle—These for shampoos. Filed Feb. 3, 1955 by Armour & Co., Chicago. Claims use since Jan. 5, 1955, on both.

Dynasol—This for solvent type cleaner for cleaning exterior surfaces and housings of electrical equipment. Filed Sept. 30, 1954 by Chemical Cleaning Service, Inc., New York. Claims use since on or about Apr. 1, 1954.

Write Go—This for chemical preparation for removing ink, ink stains and the like. Filed Feb. 8, 1955 by A. L. Wilson Chemical Co., Kearny, N. J. Claims use since Jan. 17, 1955.

Klearsight—This is for chemically treated polishing tissues for use as spectacle lens cleaners. Filed Nov. 16, 1953 by General Industries Corp., Boston. Claims use since Nov. 1, 1952.

Mica-Nu—This for cleaner and polish for plastic surfaces, table tops, enamel surfaces, etc. Filed June 21, 1954 by Frank Filla, Great Neck, N. Y. Claims use since Jan. 13, 1954.

Long Island—This for polishing material, namely Italian pumice. Filed Aug. 9, 1954 by James H. Rhodes & Co., Chicago. Claims use since Sept. 23, 1949.

Mirite—This for an ingredient in the manufacture of floor waxes, Filed Nov. 2, 1954 by West Disinfecting Co., Long Island City, N. Y. Claims use since Oct. 1, 1954.

Gulf—This for liquid cleaner and polish for woodwork, furniture and household dusting. Filed Nov. 19, 1954 by Gulf Oil Corp., Pittsburgh, Pa. Claims use since on or about April 15, 1946.

Karseal—This for automobile polish. Filed Dec. 1, 1954 by Karseal Corp., Hollywood, Calif. Claims use since Sept. 13, 1946.

IBBCO—This for liquid and solid waxes. Filed March 3, 1955 by Indianapolis Brush & Broom Mfg. Co., Indianapolis, Ind. Claims use since Dec. 9, 1954.

Basudin — This for chemical products for protecting plants and destroying vermin. Filed Jan. 18, 1955 by Geigy Chemical Corp., New York. Claims use since Dec. 7, 1954.

Poly Kleen—This for water conditioner in toilet flush tanks. Filed March 25, 1955 by Roscoe H. Harper, Lewistown, Pa. Claims use since Feb. 3, 1955.

Ku-Rill — This for shaving lather. Filed Feb. 25, 1954 by A. C. Hynd Corp., Dayton, O. Claims use since Aug. 1, 1953.

close-up — This for shave cream. Filed March 18, 1954 by Mathieson Products Corp., New York, to Lentheric, Inc., New York. Claims use since Feb. 27, 1953.

Shave-Joy—This for aerated shaving cream. Filed July 27, 1954 by Spray Maid Products Co., Fairfield, Conn. Claims use since April 5, 1952.

Mercan Can-O-Matic—This for tin can dispensers combined with a detergent for use in dishwashing machines. Filed April 29, 1953 by Theobald Industries, Kearny, N. J. Claims use since Nov. 7, 1952.

Pine-Air—This for liquid cleaner having deodorizing and disinfecting qualities. Filed June 21, 1954 by Delta Chemical Co., Memphis, Tenn., to Dust-A-Way, Memphis. Claims use since May 2, 1951.

X 45—This for industrial and household cleaning compound used with water. Filed Aug. 10, 1954 by Chemical & Combustion Corp., New York. Claims use since Sept. 28, 1949.

Pro-Kleen—This for rug, upholstery, curtain, drape and fabric cleaner. Filed Aug. 23, 1954 by Pro-Kleen Industries, Inc., New York. Claims use since June 15, 1954.

Brown's Windoglo—This for powdered cleaner for glass surfaces. Filed Dec. 27, 1954 by Charles F. Brown, doing business as Tennessee Supply Co., Greeneville, Tenn. Claims use since Dec. 1, 1954.

micro-solv—This for cleaning powder with sterilizing properties, especially effective for removing tissues and sera from glass and other smooth surfaces. Filed Dec. 28, 1954 by Microbiological Associates, Inc., Miami, Fla. Claims use since Oct. 29, 1954.

Rubber Tone—This for cleaner for rubber products. Filed Jan. 3, 1955 by T. J. Silber, doing business as Economy Products Co., Los Angeles, Calif. Claims use since Sept., 1940.

Manpro—This for trichlorethylene; perchlorethylene; paint strippers; and cold, alkali, emulsion, and acid type cleaners. Filed Jan. 20, 1955 by Manufacturers Processing Co., Detroit, Mich. Claims use since June 26, 1950.

Kar-Kote—This for detergent for washing automotive painted surfaces. Filed March 30, 1955 by Coastal Chemical Corp., Garfield, N. J. Claims use since Oct. 20, 1954.

Terg-A-Tabs—This for cleaner and detergent for washing and cleaning pipettes. Filed Apr. 7, 1955 by Standard Scientific Supply Corp., New York. Claims use since May 4, 1954.

Charm House—This for polish for floors, furniture, auto bodies, and metal, and for polishing cloth and wax. Filed Jan. 18, 1955 by Arkwright Merchandising Corp., New York. Claims use since June 2, 1944.

Brisk—This for household deodorant in tablet form. Filed Aug. 30, 1954 by Gross-Padow Corp., Brooklyn, N. Y. Claims use since Nov. 22, 1952.

Pennolox—This for hydrofluoric acid containing compositions for use as rust stain remover and laundry sour. Filed April 13, 1955 by Pennsylvania Salt Manufacturing Co., Philadelphia. Claims use since Aug. 3, 1954.

Maid-Aid—This for concentrated liquid household cleaner. Filed July 17, 1953, by John B. Rosefield, doing business as An-Fo Manufacturing Co., Oakland, Calif. Claims use since May 4, 1953.

Moth gon—This for additives of a detergent cleanser for upholstery, rugs, painted surfaces and glass. Filed Jan. 27, 1954 by Hosid Products Inc., Syracuse, N. Y. Claims use since Dec. 9, 1953.

The Patrician House—This for toilet soaps and shampoo in powder, liquid and cream form. Filed Aug. 17, 1954, by Juenger & Gebhardt A. G., Koeln-Ehrenfeld, Germany. Claims ownership of German registration dated Feb. 21, 1952.

Leopard—This for cleaner and spot remover for fabrics, shoes, car seats, and other dry-cleanable articles. Filed April 25, 1955 by Carbona Products Co., Long Island City, N. Y. Claims use since June 15, 1954.

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Dow Moves Atlanta Office

Removal of the area sales office of Dow Chemical Co., Midland, Mich., to larger quarters at the Fulton National Bank Building, Atlanta, was announced recently by Donald Williams, Dow vice-president and director of sales. New teletype equipment has been installed in the office linking it with the company's private network established in 1946. The Atlanta office is managed by Leroy C. Stenart, with Dow for the past 37 years. Founded in 1950 it services markets in Georgia, Alabama, Florida, North and South Carolina.



Director of Research Fred A. Levin, of The Nestle-LeMur Company, was quick to recognize the unusual benefits of the Pluronics to the cosmetic industry.

"Pluronics definitely have an important place in the cosmetic field"

– The Nestle-LeMur Company, New York, N.Y.

In the manufacture of hair preparations, cosmetics, perfumes, guesswork won't do. You have to be *sure* if you want to protect your good name, and build sales through satisfied users.

The Nestle-LeMur Company knows this through years of experience as makers and distributors of quality cosmetics and hair preparations. In the words of Research Director Fred A. Levin: "We are always receptive to chemical raw materials which will enable us to improve our end products. As soon as the PLURONICS* were announced, we recognized in them a balance of properties which was not available in other nonionic surfactants.

"Consequently, we asked for numerous samples in the PLURONICS series – and thoroughly evaluated those which appeared to have desirable characteristics for our products.

"The low toxicity of all the PLURONICS has been particularly appealing to us. For, in cosmetics, they can be safely applied to the skin. We've found the PLURONICS very effective in our Nestle-Lite bleach. And, for our needs, they are far superior in this preparation than any of the many nonionics previously tried.

"We also use PLURONICS in some of our other well-known products. For example, in our Nestle Color Hair Dye, they serve as an exceptional wetting agent and detergent. It's our policy to continue experiments with the PLURONICS, because no other single product on the market offers their wide range of properties."

How about *your* business? PLURONICS have accounted for substantial savings in many fields: viscose rayon and cellophane, metal cleaning, home-laundry detergents, boiler descalants, mechanical dishwashing, dye leveling – to name a few. Write, giving details of your expected applications. We will supply pertinent data and proper PLURONICS samples for your evaluation. *Wyandotte Chemicals Corporation, Wyandotte, Mich. Offices in principal cities.*

*REG. U.S. PAT. OFF.

Wyandotte
REG. U.S. PAT. OFF.
CHEMICALS

HEADQUARTERS FOR ALKALIES

Soda Ash • Caustic Soda • Bicarbonate of Soda • Chlorine
Muriatic Acid • Calcium Carbonate • Calcium Chloride
Glycols • Chlorinated Solvents • Synthetic Detergents
Other Organic and Inorganic Chemicals

News

Clark Bon Ami President

Lester G. Clark has been elected president and general manager of Bon Ami Co., New York, it was announced last month by Nathan Cummings, chairman of the board. Mr. Clark, who has served as secretary and treasurer, a director and member of the executive committee of the company for many years, succeeds Alvan E. Davison, who has retired.

Mr. Clark retains the office of treasurer and Howard Engel has been elected secretary and William R. Rankin assistant secretary of the company.

Mr. Clark is also a director of Technicolor, Inc.

—★—

New Safeway Detergent

A new liquid detergent, "Scamper," made by Home Needs Co., Los Angeles, was introduced recently in Safeway stores in Los Angeles. The new detergent is pink in color, and comes packaged in pink and aqua cans of 12 and 22 ounce sizes. The product, which contains "Lumine" to overcome "one of the major causes of skin irritation," is designed for dishwashing. In addition, "Scamper" may be used for washing nylons, woolens and other fine fabrics. A two-page advertising spread in a recent issue of Safeway's *Family Circle* magazine featured new "Scamper."

—★—

Schaafsma in New Post

Bernard R. Schaafsma has been advanced to assistant director of research for Colgate-Palmolive Co., Jersey City, N. J., it has been announced recently by Thomas H. Vaughn, vice-president. In his new position Dr. Schaafsma supervises research activities of the synthetic detergents division, soaps division, mechanical engineering and pilot plants.

With Colgate since 1946, Dr. Schaafsma started as a senior project engineer and became leader in 1947. He was named head of the physical chemistry division in 1954.



Bernard R. Schaafsma

Prior to joining Colgate he was a development chemist in the Paint & Varnish Division of Pittsburgh Plate Glass Co.

—★—

Soap Industry Analysis

Prospects for the soap industry are considered favorable by *Value Line Investment Survey* published by Arnold Bernhard & Co., New York. Both Colgate-Palmolive Co., Jersey City, N. J., and Procter & Gamble Co., Cincinnati, are included in the analysis. The optimistic forecast is based on growing diversification of the soap companies and increasing emphasis on foreign sales. In addition, the analysis anticipates a gradual improvement in the price of fatty raw materials.

—★—

Hill to Am. Alcolac

C. W. Hill, Jr., has joined American Alcolac Corp., Baltimore, Md., as project engineer at the Baltimore plant, it was announced recently. He will be responsible for the design and construction of all equipment for new products. Mr. Hill's previous connection include Mannington Mills and Glidden Co., Cleveland.

Babbitt to Move

The entire fifteenth floor of the reconstructed office building at 625 Madison Avenue will be occupied by B. T. Babbitt, Inc., it was announced late last month. Babbitt will move from 386 Fourth Avenue, where its offices have been located since 1928. Formerly a ten-story building, the structure is being converted to 17 stories and is scheduled to be ready for office occupancy early next year.

—★—

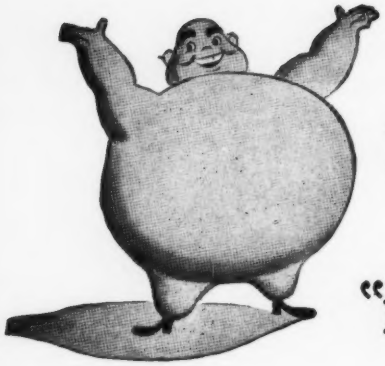
Cunningham Moves

Cunningham Cleanser Corp. of New Jersey is currently in the process of moving its plant and offices to a new, modern building at 13-21 Florida Ave., Paterson, N. J. The move from the company's former quarters at 175 Getty Ave., Clifton, N. J., began Dec. 1. Company officials estimated it would take about 30 days to complete the move.

The new building which Cunningham will occupy contains approximately 20,000 square feet of floor space, all of which is open and free from pillars and posts. It has been designed and engineered to provide a modern and efficient private label compounding operation, according to the company. The plant is equipped with gas heat, and the offices are air-conditioned. The new location also provides 5,000 square feet of adjacent land and tanks outside the building are fully enclosed. The plant will be equipped with new mixers and tanks, and both tail-gate and street level loading platforms, as well as a railroad siding, are provided.

Cunningham is exclusively a private label firm, specializing in the compounding and packaging of chemical specialties, detergents, metal cleaning compounds, solvents.

No undue interruption in service is anticipated during the move and operations should be back to normal by Jan. 1, 1956, according to the company.



Mr. fatty acid says...

"for clear liquid soaps that really lather and give uniform color batch after batch . . . use ADM fatty acids"

FATTY ACID TYPE AND GRADE	METALLIC SOAPS	LIQUID SOAPS	WAXES AND POLISHES	INSECTICIDES AND DISINFECTANTS	LUBRICATING GREASES	COSMETICS	PHARMACEUTICAL
COCONUT							
Double-Distilled		X		X		X	
LINSEED							
Regular	X	X		X			
SM-500	X	X		X			
SM-600	X	X		X			
Essential Unsaturated Free Fatty Acids							X
SOYA							
Regular	X	X		X			
RO-4	X	X		X			
RO-10	X	X	X	X	X		
RO-11S	X			X			
MIXED VEGETABLE							
RO-8	X	X	X	X	X		
CORN-SOYA							
Double-Distilled		X	X	X	X		
CORN							
Double-Distilled		X	X	X	X		
COTTONSEED							
Double-Distilled	X		X	X	X		

Archer-Daniels-Midland company

Archer QUALITY

Uniformity of quality is a special problem in buying soap-making fatty acids. For even slight variations in raw materials and processing can impair the purity of acids . . . their uniformity, color and saponification characteristics.

As scores of users testify, you can be doubly sure of *uniform* quality year after year when you specify ADM Fatty Acids. The reasons include strict quality control inspection at every production stage.

ADM Fatty Acids make liquid soaps with superb clarity and minimum content of unsaponifiables at every price level.

ADM's RO-10 Soya and D-D Corn fatty acids are well known for their mildness in contact with the skin. For checking samples and technical data mail the coupon below.

For clearer liquid soap

ADM fatty acid

Mail this coupon today.

ARCHER-DANIELS-MIDLAND COMPANY
700 Investors Building, Minneapolis 2, Minnesota

..... Please send samples of the following ADM Fatty Acid for my evaluation_____

.... Please send Technical Bulletin.

Name_____

Title_____

Company_____

Address_____

City_____ Zone_____ State_____

Becco Advances Shutts

Albert L. Shutts has been appointed manager of the New York territory for Becco Chemical



Albert L. Shutts

Division of Food Machinery and Chemical Corp., Buffalo, N.Y., it was announced in November by John F. Shea, vice-president in charge of sales. The New York territory covers Vermont, parts of New Jersey, Massachusetts, Connecticut, and New York State with headquarters in New York City. Mr. Shutts succeeds Eric A. Hansen, who retired in April of this year. With Becco since 1946, Mr. Shutts was formerly in charge of sales and customer service operations in the New York territory.

—★—

Chiris Management Change

F. E. Shoninger, president of Antoine Chiris Co., New York, and managing director of Antoine Chiris, Ltd., London, England, returned last month from a week's visit to the French parent company's headquarters in Grasse. He reports a change in the management of the French firm: Joseph Maunier, commercial manager has retired and is succeeded by Jacques Maisondieu, former sales manager and assistant commercial manager.

Other officers of the firm are: Leon A. de Chiris, chairman; Pierre Moirez, general manager; Georges Igolen, technical manager; Louis Benezet, assistant technical manager, and Pierre Carnot, chief perfumer. The house of Chiris has had nearly 200 years of unchanged ownership. It is currently engaged in a program of modernization, according to Mr. Shoninger. A new plant has been added to the facilities of the industrial aromatics department, featuring what is claimed to be among the most modern and up-to-date isolation equipment in the world. Manfred Vock, a well known German food and flavor chemist, heads the firm's flavor division, which has greatly expanded in recent years, both in personnel and output.

—★—

Lavender Reinforcer

A specialty designed to reestablish the light note often lost in the preparation of lavender formulations was introduced recently by Rhodia, Inc., New York. "Lavender Reinforcer R.P." is based on ketones found in natural oil of lavender. A three percent addition of the compound is said to impart more tenacity to high ester products and is claimed to improve low ester oils. It is suggested for use in soap perfuming where lavender and lavandin are used.

—★—

Neumann-Buslee Expands

Neumann-Buslee & Wolfe, Inc., Chicago, has doubled its plant facilities, it was announced last month. The firm specializes in essential oils and related products designed for use in soap, and other specialties. At the same time the firm announced two additions to its staff: Frank Vejsada has joined the laboratory staff and Louis J. Reif will service the trade in a sales capacity in the middle west and southern states.

Kutol Names Fluhart

Appointment of Milton Fluhart as exclusive sales representative for central and western New



Milton Fluhart

York State and Erie, Pa., area was announced recently by Kutol Products, Inc., Cincinnati, makers of powdered industrial hand cleansers.

Mr. Fluhart makes his headquarters in Buffalo. He has been engaged in selling hand cleaners and allied products in New York and Pennsylvania territories since 1938.

—★—

Silicate Price Changes

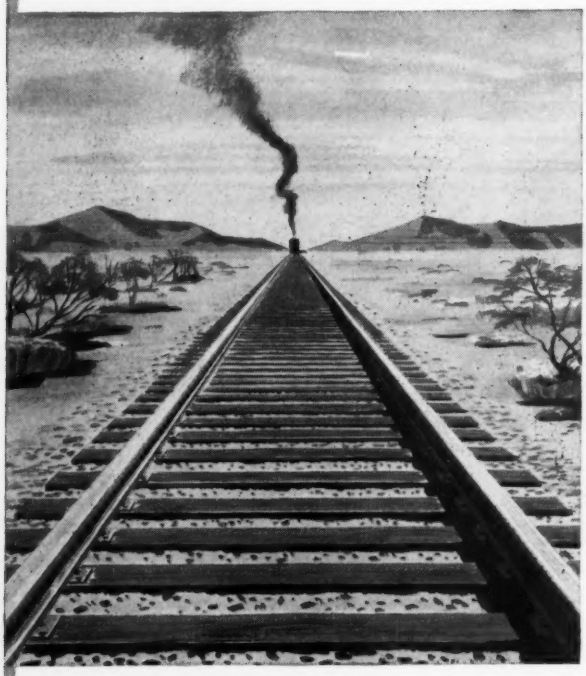
The price of several crystalline silicates will be changed by Philadelphia Quartz Co., Philadelphia, it was announced last month. Effective January 1, 1956, carload lots, f.o.b. works, for 100 pounds the schedule will be: anydrous sodium metasilicate, in bags, $5.35; sodium sesquisilicate, in bags, $4.80; sodium orthosilicate, concentrated, in fibre drums, $6.30.

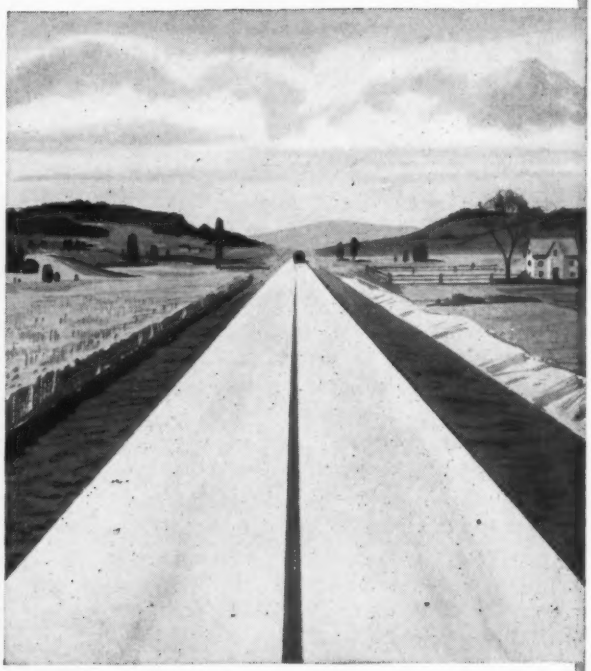
Neumann-Buslee & Wolfe, Inc., plant, Chicago, which was doubled in size by addition recently completed shown recessed at left.



DOW

. . . almost out of sight already . . .





YOUR CAUSTIC ORDER'S ON ITS WAY FROM DOW

The steel rails could be in New York or New Mexico . . . the highway in Oregon or Alabama. Wherever, however . . . it's another caustic soda order on the way from Dow. The order is just hours old, but it's on its way.

Dow's vast and amazingly flexible distribution network is the answer. Three plants and six shipping terminals are tied together by a network of order communications.

Hundreds of caustic customers have learned how resourceful and helpful Dow Technical Service men can be. Whether it's an irritating wrinkle in your processing or a basic decision about the form of caustic you can use to best advantage—a call to Dow brings these trained consultants to you. Surprising savings in plant operations often develop from their visits.

Put your caustic problems "out of sight" for good. Simply make sure your next caustic order is with Dow. THE DOW CHEMICAL COMPANY, Dept. AL 390G-1, Midland Michigan.

you can depend on DOW CHEMICALS DOW

New Malmstrom Lanolin

Malmstrom Chemical Corp., Newark, N. J., has started full scale production of refined liquid lanolin, according to a recent announcement by Ivar Malmstrom, board chairman of the company.

The new product, known as "Lantrol," is a bland, non-tacky, amber-colored lanolin oil currently being tested or used in such products as hair dressings, aerosol containers, shampoos, suntan products and other cosmetic formulations. According to the announcement, tests by industrial laboratories show "Lantrol" to be neither an irritant, a skin fatiguer, nor a skin sensitizer. The new product is claimed to be free of such objectionable features of regular lanolin as stickiness.

Malmstrom also manufactures "Lanfrax," a hard separation of U. S. P. lanolin with the consistancy of beeswax. It is being tested as a substitute for other animal and vegetable waxes by manufacturers of such products as shoe polish and other products.

Malmstrom Chemical Corp. was chartered in 1954 and is independently owned and operated.

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Cos. Chems. to Hear Russell

Kenneth L. Russel, perfumer of Colgate-Palmolive Co., Jersey City, N. J., and president of the Society of Cosmetic Chemists spoke at the Oct. 26 dinner meeting of the group's New York Chapter. The meeting was held at the Brass Rail Restaurant, New York.

Colgate Aids Flood Relief

E. H. Little, chairman of the board of Colgate-Palmolive Co., Jersey City, N. J., recently presented to Robert Pierpont, Eastern States Flood Relief Director for the Red Cross, a check for $10,000, a quantity of soap and 30,000 units of tooth powder. Mr. Pierpont accepted the gifts on behalf of the local Red Cross chapters in Kansas City, Kans., Jeffersonville, Ind., Berkeley, Calif., Jersey City and New York City, for flood relief quotas assigned to Red Cross units in each of the cities. Colgate had previously channeled another 30,000 units of tooth powder through other relief agencies, making its total donation 60,000 units, worth about $12,000.

Names Konen, Schroeder

Election of James C. Konen as a vice-president and appointment of Burton W. Schroeder to the newly created position of assistant to the president were announced last month by Archer-Daniels-Midland Co., Minneapolis, Minn. Mr. Konen, former assistant vice-president and director of research, succeeds S. O. Sorensen, vice-president in charge of research, who has retired owing to reasons of health. Having joined ADM in 1935, Mr. Konen entered technical sales service work a year later. In 1942 he was placed in charge of a research development group, was named director of research the following year, and elected assistant vice-president in 1952. He has served on the company's advisory committee and recently attended the advanced management school at Harvard.

Burton W. Schroeder, manager of ADM's industrial cereals division and in charge of the sale of vegetable fatty acids, was elected an assistant vice-president last February. He joined the company in 1939 following his graduation from the University of Michigan. After one year's service as control chemist at the Milwaukee plant he transferred to the Minneapolis research laboratory where he remained until he joined the Navy in 1943. After his return from service in 1946 Mr. Schroeder conducted the original market research on industrial cereals, was named manager of the vegetable fatty acids department in 1948 and was placed in charge of the industrial cereals division in 1954.

Mr. Sorensen will continue to serve ADM in an advisory capacity. Soon after he joined the firm in 1923 he organized its first laboratory in Buffalo, N.Y. Four years later he went to Minneapolis to coordinate the company's research and control laboratories. Mr. Sorensen was elected vice-president in charge of research in 1947 and to the board of directors in 1951.

James C. Konen



S. O. Sorensen



Burton W. Schroeder





for revised formulas

or new ones ...

METSO ANHYDROUS

SODIUM METASILICATE ANHYDROUS

You get more from Metso Anhydrous. This is the anhydrous sodium metasilicate with the true metasilicate ratio. You'll find Metso Anhydrous is a bigger value because it is high in SiO_2 and low in CO_2 impurity. You get full benefits from soluble silica performance.

Your compounds are outstandingly attractive when you choose the white free-flowing granules of Metso Anhydrous. There's no water transfer to other materials in your compounds to cause caking. Special manufacturing process gives Metso Anhydrous a unique physical form which increases resistance to caking.

Use Metso Anhydrous for reliable performance in compounds for dishwashing, laundering, household detergents, floor cleaning, metal cleaning, soaker tank, spray washing, steam gun, soap builders.

Let us send you samples; and prices in multi-wall paper bags (100 lbs.) or in asphalt-barrier fibre drums (400 lbs.).

PQ SOLUBLE SILICATES

METSO DETERGENTS

Trademarks Reg. U.S. Pat. Off.

PHILADELPHIA QUARTZ COMPANY

established 1831

1152 Public Ledger Bldg., Philadelphia 6, Pa.

ASSOCIATES: Philadelphia Quartz Co. of Calif. Berkeley & Los Angeles, Calif., Tacoma, Wash.; National Silicates Limited, Toronto, Canada

Norda Acquires Heine

The purchase of all the American assets of Heine & Co. by Norda Essential Oil & Chemical Co., New York, was announced early in November. Heine & Co., manufacturer of perfume and cosmetic compounds, originated in Leipzig, Germany, and began its operations in the United States in 1905. The American firm, operated by Paul Schultz-Berge and his brother, Theodore, worked with the parent company in producing essential oils, aromatic chemicals and natural and artificial flower products. In 1946, under the Trading with the Enemy Act, the United States Government Alien Property Custodian seized Heine & Co. Heine now resumes production at Norda's headquarters, 601 W. 26th St., New York 1, N. Y.

Frederick C. Keidel will again be chief perfumer of Heine & Co., and Chester Tompkins will be in charge of sales.

At the same time Norda announced the completion of a new plant at Boonton, N. J., where it will spray dry food flavoring materials. Spray dried flavors, according to Norda, have ten times the life of mechanically dried flavors.

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Section Meets Dec. 14

The Scientific Section of the Toilet Goods Association will meet on Wednesday, Dec. 14, in the Sert Room of the Waldorf-Astoria Hotel, New York. The all day meeting is closed to non-members of the association. The seven papers scheduled for presentation include: "Aerosol Spray Patterns," by Morris J. Root, technical director, G. Barr & Co., Chicago; "Creme Shampoo Formulations" by R. L. Patterson, industrial research department of Procter & Gamble Co., Cincinnati; "Factors Contributing to the Performance of Shampoos and to Consumer Acceptance," by Gabriel Barnett and Donald H. Powers, Warner-Lambert Pharmaceutical Co., New York; "In Vitro Test for Predicting the Effectiveness of Antibacterial Agents in Soap," by C. L. Bechtold, E. A. Lawrence, and E. M. Owen, research and development department of Colgate-Palmolive Co., Jersey City, N. J.; and "A Practical Approach to Container Development for Toiletries," by A. R. Jasuta, chief packaging unit, Bristol-Myers Research and Development Laboratories, New York.

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P&G Merges Buckeye Units

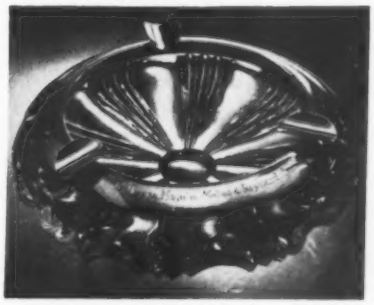
The merger of two of its wholly owned subsidiaries, Buckeye Cotton Oil Co. and Buckeye Cellulose Corp., was announced recently by Procter & Gamble Co., Cincinnati. The merged corporation, to be known as Buckeye Cellulose Corp., has 16 cottonseed and soybean oil mills in the South. The firm also has two plants for the production of cellulose pulp at Foley, Fla., and Memphis. Headquarters of the two subsidiaries are in Cincinnati.

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Magnus Honored Abroad

During their recent visit to Europe, Percy C. Magnus, president and Dr. Henri F. Logcher, export manager of Magnus, Mabee & Reynard, Inc., New York, were honored by executives of Cornehls & Bosse, Hamburg, Germany, at a dinner at the Cosmopolitan Club, there. Following the dinner Herbert Cornehls, president of Cornehls & Bosse, presented Mr. Magnus with a nine inch diamond-cut crystal ash tray. The ash tray has a solid silver band, on which was engraved the following inscription: "To Messrs. Magnus, Mabee & Reynard, Inc., in commemoration of their Diamond Jubilee, 1955, presented by Cornehls & Bosse, Hamburg."

Crystal ash tray presented to Magnus, Mabee & Reynard, Inc.



Louis McDavitt Dies

Louis McDavitt, 87, retired sales manager of Colgate Co., (now Colgate-Palmolive Co.) Jersey City, N. J., died Oct. 15 at his home in Chester, N. J., after a short illness. He is survived by his widow, Mrs. Edna Schofield McDavitt; two sons, John W. and William R.; a daughter, Mrs. Laura Chambliss and seven grandchildren and 13 great grandchildren.

—★—

New Witco Stearates Plant

A new metallic stearates plant at Los Angeles, Calif., was opened by Witco Chemical Co., New York, late last month, it was announced by Max A. Minnig, executive vice-president. Responsible for plant operations is S. M. Freeman, West Coast regional vice-president. With stearate plants in Chicago and Brooklyn, N. Y., respectively, Witco claims to be the first producer to operate such plants in all three of the largest consuming areas. The firm now operates 11 plants in the United States for the production of industrial chemicals.

—★—

Thomas to Hooker

Robert E. Thomas has joined the public relations department of Hooker Electro-chemical Co., Niagara Falls, N. Y., it was announced recently by R. Wolcott Hooker, vice-president. Mr. Thomas, who holds a bachelor of science degree and a master's degree in history from Columbia University, was previously associated with Dudley L. Parsons Co., New York.

—★—

Michaelis Joins Mona

William Michaelis has joined the research staff of Mona Industries, Inc., Paterson, N. J., it was announced recently by W. O. Schlimbach, secretary. He is chiefly concerned with surface active agents. Previously Mr. Michaelis was connected with Onyx Oil & Chemical Co., Jersey City, N. J.; Standard Chlorine Chemical Co., S. Kearny, N.J., and the White Tar Division of Koppers Co., Kearny, N. J.



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Glidden Tall Oil Paint

Crude and distilled tall oil, high grade fatty acids and rosins, and by-product pitch will be made at a plant to be constructed at Port St. Joe, Fla., by Glidden Co., Cleveland, it was announced recently. The multi-million-dollar plant will be designed to handle 50,000 tons annually of by-product soap skimmings from Southern kraft paper mills by new continuous processes for treatment of the skimmings, which Glidden has developed. The new unit will be the fourth chemical plant operated by Glidden in the South.

—★—

Witwer in New Post

Daniel B. Witwer has been appointed manager of the acetylene chemicals department of Antara Chemicals, a sales division of General Aniline & Film Corp., New York, it was announced last month by H. G. Shelton, division sales manager.

The newly formed department handles the sales of products manufactured at the company's new six million dollar plant at Calvert City, Ky. This plant, which produces acetylene derivatives by high pressure techniques, is scheduled for full scale production in early 1956.

Mr. Witwer has been with General Aniline's commercial development department since 1949 and since that time has been engaged in the market development of acetylene derivatives.

Daniel A. Witwer



Hickey to Florasynth

Michael J. Hickey has been appointed chemist in charge of quality control of perfumes, essential oils, and other related materials for Florasynth Laboratories, Inc., Bronx, N. Y., it was announced recently by Joseph H. Fein, treasurer. Mr. Hickey has been in the essential oil field for the past seventeen years.



Michael J. Hickey

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Dow Advances Gunn

The advancement of Floyd J. Gunn to manager of the Los Angeles office of Dow Chemical Co., Midland, Mich., was announced last month by Donald Williams, vice-president and director of sales. For the past six years Mr. Gunn had served as manager of coating sales for Dow's plastics department. He succeeds Homer L. White who had held the post since 1950. Mr. White has joined the production control staff in Midland.

—— ★ ——

Germans Visit D & O

The perfume and aerosol testing laboratories of Dodge & Olcott, Inc., New York, were visited recently by a group of German business executives. Under the auspices of the Trade and Industry Tours Association, Inc., the group included: Mr. and Mrs. Wilhelm Gastberg, manufacturers of soap and perfumes, Bochum; Christian Erhardt, chairman of the board of the central purchasing office of Europaeische Coiffeur Genossenschaft (European Association of Hairdressers) G.m.b.h., Stuttgart; Ilse Hepprich, owner of a department store in Duesseldorf; and tour manager Edith Wirth.

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Houghton Names Menin

Appointment of Bernard Menin as assistant manager of the textile sales development department was announced recently by E. F. Houghton & Co., Philadelphia. With Houghton since 1941, Mr. Menin's most recent post was that of supervisor of textile application research.

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Hooker Expands Plant

Within recent months Hooker Electrochemical Co., Niagara Falls, N. Y., has authorized a total of almost $3,000,000 to be spent for enlargement and product diversification at its Montague, Mich., plant. Extra facilities projected or already built include a hydrogen chloride compression unit and a hydrogen chloride gas pipeline to the adjacent property owned by E. I. du Pont de Nemours & Co., Wilmington, Del.; a steam line to du Pont; piping for hydrogen collection and a hydrogen compression unit; additional chlorine liquifaction system with ancillary facilities; and a second circuit of Hooker electrolytic cells producing chlorine, caustic soda, and hydrogen which went into operation in June.

Perkin Medal to Britton

Edgar C. Britton,, director of the Edgar C. Britton Research Laboratories of Dow Chemical Co., Midland, Mich., was chosen recently to receive the Perkin Medal of the American Section of the Society of Chemical Industry for 1956. Dr. Britton is a past president of the American Chemical Society. The 1956 award will be the 50th impression of the Perkins medal, bestowed annually for outstanding achievement in applied chemistry in the United States. It will be presented to Dr. Britton in September, 1956, at a dinner in his honor forming part of the celebration of the centenary of Sir William Henry Perkin's dye synthesis.

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Variety Stores Shows Set

The National Association of Variety Stores, Inc., published recently the schedule for its 1956 spring five cents to five dollars merchandise shows. The dates are: Jan. 8-10, Baker Hotel, Dallas; Jan. 29-31, Radisson Hotel, Minneapolis; Feb. 5-8, La Salle Hotel, Chicago; Feb. 12-14, Municipal Auditorium, Atlanta; and March 4-6, Netherland Plaza Hotel, Cincinnati.

At the 59th trade show in Chicago the annual meeting of the association will be held. One of the highlights of the occasion will be the president's banquet on Feb. 6.

Photo taken during visit of German executives to D & O laboratories shows, left to right, first row, Mrs. Ruth Farnworth, D & O advertising manager, Christian Erhardt; Mrs. Ilse Hepprich; Mrs. and Mr. Wilhelm Gastberg; second row, Mrs. Edith Wirth, tour manager; Fritz Schubet, Vincent DeFeo and Ted Waugh, all of D & O.

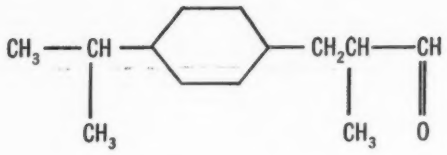




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Colgate Third Quarter Earnings Up

Colgate-Palmolive Co., Jersey City, N. J., reported late last month a net income for the three months ended Sept. 30, 1955 of $5,016,000 or $1.99 per share of common stocks, as compared with $4,250,000 or $1.70 per share in the corresponding period of 1954. For the first nine months, a net income of $9,517,000 or $3.73 per share was reported as compared with $9,799,000 or $3.90 per share in the preceding year.

Domestic and foreign sales in the third quarter of 1955 established new quarterly records. Domestic sales were $80,975,000 and sales of foreign subsidiaries not consolidated totaled $46,380,000. This compares with domestic sales of $71,636,000 and foreign sales of $41,989,000 in the third quarter of 1954.

For the nine months ended Sept. 30, 1955 domestic sales amounted to $218,915,000, as compared with $203,440,000 in the 1954 period. Foreign sales for the year-to-date were $135,252,000 in 1955 and $122,161,000 in the preceding year. Total world-wide sales for the nine months were $354,167,000, which compares with $325,601,000 in the same period of 1954.

Net income for the first nine months of 1955 includes dividend income from foreign subsidiaries of $4,029,000, as compared with $3,395,000 in the 1954 period. Actual earnings of foreign subsidiaries for the nine months ended Sept. 30, 1955 were $6,637,000. In the same period of 1954, actual foreign earnings totaled $6,946,000. The undistributed portion of foreign earnings for the nine months was equivalent to 98 cents per share in 1955 and $1.34 per share in 1954.

—★—

Babbit Sales Rise

B. T. Babbitt Inc., New York, reported for the nine months ended Sept. 30, 1955, net sales amounting to $13,103,338 compared with $13,046,455 in the corresponding period of 1954. Net income in 1955 was $486,080, against $533,238 in 1954, being equal to earnings per common share of 47 cents in the 1955 period and 52 cents in 1954.

For the third quarter of 1955 Babbitt reported a rise in sales to $4,497,819 from $4,423,197 reported for the corresponding quarter of last year. Net income in the 1955 quarter was $147,963, with per share earnings of 14 cents, compared with $157,076 and 15 cents in 1954.

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P & G Earnings Down

Net profit for the third quarter of 1955 reported by Procter & Gamble Co., Cincinnati, dropped to $17,318,098 from $18,915,709 in the corresponding quarter of 1954. September quarter earnings per common share equalled $1.78 on 9,659,116 common shares outstanding. This compares with $1.96 a share on 9,624,780 common shares in the 1954 quarter.

Before taxes earnings declined to $35,473,098 from last year's $40,099,709, with taxes amounting to $18,155,000 in the 1955 quarter.

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Purex Record Sales

Record sales of 25 million dollars for the fiscal year ended June 30, 1955 were reported recently by Purex Corp., South Gate, Calif.

Purex sales for the fiscal year totaled $25,112,678, compared with $21,119,549 to June, 1954; net income for the 1955 fiscal period was $762,867 equivalent to $1.22 per share on 627,300 shares outstanding June 30, 1955, as against $533,583 and $1.07 per share on the 500,000 shares outstanding June 30, 1954. The per share rate of earning for 1955 was somewhat reduced by issuance of new capital stock for the acquisition of Old Dutch Cleanser. For the Old Dutch Cleanser Division plants and equipment and the capital stock of the wholly-owned Australian subsidiary corporation, Purex paid $2,073,000 by issuing 130,000 shares of the company's capital stock and $253,000 in cash. Earnings from that division for the months May and June 1955 represented only a relatively minor portion of the company's total earnings for the year, it was pointed out.

Purex also announced an increase in the quarterly dividend rate from 15 cents to 20 cents per share effective with the June 30, 1955 dividend.

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Avon Sales Rise

For the first three quarters in 1955 Avon Products, Inc., Suffern, N. Y., reported an increase in net sales to $43,927,928 from last year's total of $35,061,718. Net income amounted to $3,582,112 in 1955 compared with $2,800,348 in 1954. Earnings per common share in 1955 were $2.62 against $2.03 in 1954.

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Amer. Can Earnings Up

American Can Co., New York, reported record sales and earnings in the first nine months of this year. Net income rose to $28,932,161 or $2.46 a common share from $24,607,762 and $2.06 in the corresponding period of 1954. Sales and rentals for the nine months in 1955 amounted to $548,112,492, a gain of 8.8 percent over $503,901,853 in 1954.

For the third quarter the net income came to $14,514,489 or $1.27 a share compared with $11,537,692 or 99 cents a share in the September quarter of last year. Sales and rentals increased 10.4 percent to $240,272,530 from $217,557,478.

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Atlas Sales Increase

Atlas Powder Co., Wilmington, Del., showed an increase in sales during the first nine months of 1955 to $45,160,032 from $43,093,306 for the previous year. Net income was $2,558,903 against $1,880,646 during the nine months' period in 1954. With 725,245 shares



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outstanding earnings per share during the first nine months of 1955 amounted to $3.44 compared with 565,837 and $2.97 in 1954.

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Dow Earnings Up

Dow Chemical Co., Midland, Mich., reported net sales of $128,166,671 for the first quarter of its fiscal year ended Aug. 31, 1955, an increase of about 19 percent over the $107,822,510 recorded for the same months of 1954. Earnings rose from $8,544,028 to $11,723,647, equivalent to 51 cents per share on 22,778,324 shares of common stock outstanding on August 31, 1955 as against 36 cents per share on 22,651,010 outstanding on Aug. 31, 1954.

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Hercules Revenues Rise

Net sales and operating revenues reported by Hercules Powder Co., Wilmington, Del., for the nine months' period ended Sept. 30, 1955, rose to $169,791,798 from $140,191,466 for the corresponding 1954 period. Net income after preferred dividends was equal to $5.18 a share on common stock outstanding, against $3.89 a share for the first nine months in 1954. For the third quarter of 1955 net income was equal to $1.80 a share on common stock, compared with $1.31 in the third quarter of 1954.

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Continental Record Sales

Continental Can Co., New York, reported record sales for the nine months' period ended Sept. 30, 1955, amounting to $510,413,847, compared with $475,264,709 in 1954. Net income after preferred dividends was $19,727,354 in the 1955 period compared with $16,686,263 in 1954. These totals equal $5.38 per common share with 3,664,151 outstanding on Sept. 30, 1955, against $4.63 and 3,606,738 on the same date in 1954.

At the same time Continental Can declared a regular quarterly dividend of 75 cents a share on common stock payable Dec. 15, 1955 to stockholders of record Nov. 25, and of 93¾ cents a share on the $3.75 cumulative preferred stock, payable Jan. 3, 1956 to stockholders of record Dec. 15, 1955.

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Hooker Sales Up Sharply

Hooker Electrochemical Co., Niagara Falls, N. Y., and wholly owned subsidiaries reported for the nine months ended August 31, 1955, net sales of $58,246,200, an increase of 23.8 percent over the sales of $47,021,600 reported for the comparable period a year earlier. On April 29, 1955, Durez Plastics and Chemicals, Inc., was merged with and into Hooker and this report combines the results of the two companies' operations during those periods. Consolidated net income for the nine months in 1955 was $6,107,400, equal to $1.18 per share of common stock, against $4,670,900 and 89 cents in 1954. A special stockholders meeting was to be held on Nov. 29 to consider the proposal to consolidate Niagara Alkali Co. into Hooker.

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Monsanto Sales Increase

Sales reported by Monsanto Chemical Co., St. Louis, Mo., and its consolidated subsidiaries for the first nine months of 1955 amounted to $307,679,198, an increase of 22 percent over $252,636,332 for the corresponding period in 1954. Net income for the 1955 period totaled $23,581,647 compared with $16,635,642 for last year. After provision for preference dividends, 1955 income was equivalent to $1.45 a common share on the 15,935,662, $2 par value shares outstanding prior to the Lion Oil Co. merger. Earnings a common share for the similar period in 1954, adjusted for the recent three-for-one split of stock, were equal to $1.02. Sales and earnings for Lion Oil are not included in the above figures.

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Tall Oil Odor Mask

An odor mask designed to overcome the fatty type odors present in tall oil and to provide odor control for tall oil throughout the processing cycles was introduced recently by Rhodia Inc., New York. "Alamask TAL" can be used in the direct processing of crude tall oil, masking odors and allowing this material to be used for the formulation of sanitary, textile and specialty soaps, Rhodia states.

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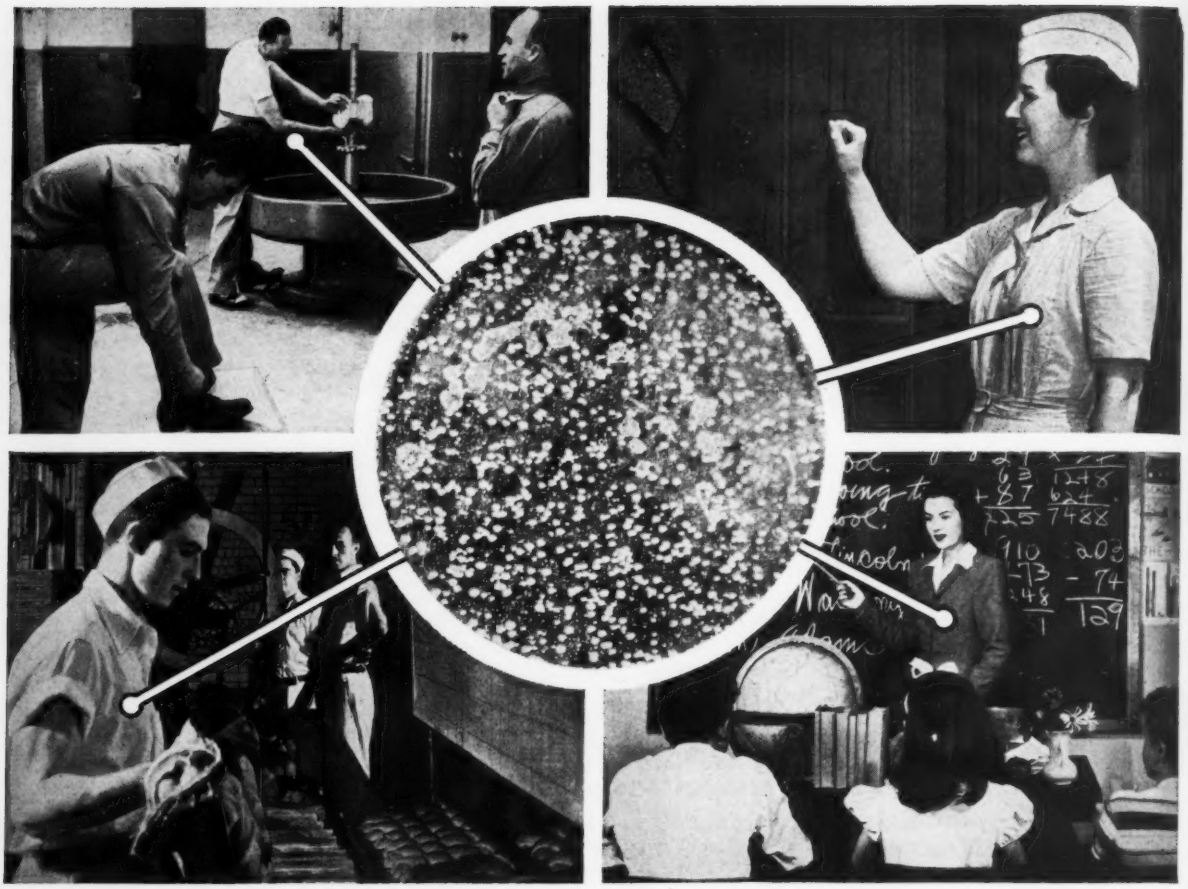
SOCMA Nominees

The following slate of officers and members of the board of governors of the Synthetic Organic Chemical Manufacturers Association of the U. S. has been selected by the nominating committee, to be voted on by the general membership during the annual meeting of SOCMA Dec. 1: president, R. Wolcott Hooker, vice-president, Hooker Electrochemical Co., Niagara Falls, N. Y.; first vice-president, J. H. Hilldring, president, General Aniline & Film Corp., New York; second vice-president, F. Dehls, vice-president, Benzol Products Co., Newark, N. J.; treasurer, J. Robert Fisher, Gamma Chemical Corp., New York; board members, class of 1958, N. B. Conley, director of sales, organic chemical division, American Cyanamid Co., New York; James A. Singmaster, general branch manager, Monsanto Chemical Co., St. Louis; honorary board members, class of 1956, Dr. August Merz, American Cyanamid Co., New York; Dr. Elvin H. Killheffer, Jensen Beach, Florida.

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Mitchell Joins Gen. Mills

William D. Mitchell has been named general manager of the chemical division of General Mills, Inc., Minneapolis, effective Oct. 1, it was announced last month by Charles H. Bell, president. For the past 20 years Mr. Mitchell had been associated with Pennsylvania Salt Manufacturing Co., Philadelphia, most recently as vice-president in charge of operations. The appointment is concurrent with a change in divisional organization. Fatty acids and specialty chemicals operations will continue as the chemical division, while soybean operations have been established as a separate division. Sewall Andrews, for the past two and one half years manager of the chemical division, has been appointed manager of the newly created soybean division.



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SAACI Nominators

The election of a nomination committee for the selection of 1956 officers and directors, announcement of the dates of its annual dinner dance and the Christmas Party were among the highlights of the annual meeting of the Salesmen's Association of the American Chemical Industry. The meeting was held at the Roosevelt Hotel, New York, following the dinner concluding the association's fourth annual sales clinic. In addition, at the meeting the proposed revisions to the association's constitution and by-laws were unanimously approved and trophies for the 1955 golf season were presented.

The following members were elected to the nominating committee to select 1956 officers and directors:

Robert J. Milano, Millmaster Chemical Corp., New York, chairman; Paul W. Hiller, International Minerals & Chemical Corp., New York; Frank G. Fanning, Frank G. Fanning Co., Newark, N.J.; Ralph L. Ericsson, Sumner Chemical Co., New York; W. J. Weed and James E. Ferris, Niagara Alkali Co., New York, and Philip J. LoBue, Philip J. LoBue Co., New York.

The fourth annual dinner dance of the Salesmen's Association of the American Chemical Industry was held Nov. 18 in the Jade Room of the Waldorf-Astoria Hotel, New York. This year the dance was a formal affair.

The annual Christmas Party of the association will be held Dec. 14, in the grand ballroom of the Hotel Commodore, New York. In addition to other door prizes, three prizes consisting of trips for two to Bermuda, Miami and Lake Placid will be awarded.

Permanent trophies for winners of the association's golf outings this past summer were awarded to Tom Moran of Eastern States Petroleum Co., Class A; Thomas Craig of Westvaco Chemical Chlor-Alkali Division of Food Machinery and Chemical Corp., Class B, who tied with Robert Short of Enjay Co.: R. M. Curts, American Potash & Chemical Corp., Class C.

The Chemists' Club trophy for the winner of the final outing went to John O'Brien of McKesson & Robbins. He was tied by Thomas Morgan of MacNair Dorland Co., and Tom Moran, of Eastern States Petroleum Co.

—★—

Ungerer Reassigns Kissel

Reassignment of William A. Kissel was announced recently by Ungerer & Co., New York. Formerly sales representative for upper New York State and eastern Canada, Mr. Kissel has been moved to the St. Louis office where he takes charge of the local area and the southwestern territory under the general supervision of J. L. Slais, Chicago district sales manager. The territory formerly covered by Mr. Kissel is now being serviced by Warren E. Kell through Ungerer's Boston office.

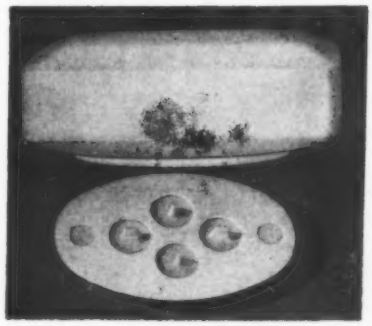
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New Milner Cleaner

A new pine oil based household cleaner is currently being regionally tested by Milner Products Co., Jackson, Miss., it was announced recently by Howard S. Cohoon, president. Mr. Cohoon was speaking before the firm's semi-annual board planning meeting. After completion of tests the new cleaner will be marketed on a national scale.

A substantial increase in sales of "Pine-Sol" and "Perma-Starch" during the first half of this year compared with 1954 was also reported by Mr. Cohoon.

New "Soap Mate" plastic wafer for holding soap up from wet soap dish. The device is pressed into wet bar of soap. Three units in different pastel shades come in cellophane bag to retail for 25 cents. Made by Slip Seal Co., Long Beach, Calif. Upper portion of photograph shows "Soap Mate" in bar of soap. Lower view shows top of the unit.



Plunkett Names Benedict

L. D. Benedict was named chairman of the board of Plunkett Chemical Co., Chicago, it was announced recently. The chairmanship is added to Mr. Benedict's current duties as president of the company. At the same time, W. H. Campion was elected vice-president in charge of purchasing and manufacturing.

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Farkas Sets up New Firm

Establishment of Alfa Essential Oil Co., New York, was announced recently by Alexander Farkas. Industrial Perfumery Laboratories, consulting and development firm set up by Dr. Farkas three years ago, will continue as Alfa's subsidiary. The newly organized company will import spice and flavor oils from eastern European sources and will represent independent California citrus fruit growers and West Coast peppermint oil producers.

Prior to forming his own consulting firm Dr. Farkas had been chief perfumer with Faberge, Inc., had served for four years as chief chemist of Polak & Schwarz, Inc., and had been associated with P. R. Dreyer, Inc., all of New York.

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Colgate Names Two

Two appointments to the division of dental medicine of Colgate-Palmolive Co., Jersey City, N. J., were announced recently by Thomas H. Vaughn, vice-president. Harry William Gordon and Alice June Wei have joined the biochemistry group in the research and development department. Prior to joining Colgate Dr. Gordon was research biochemist and instructor at New York University Bellevue Medical Center. In the department of industrial medicine he did research on industrial problems in toxicology, enzymology, and general biochemistry.

Mrs. Wei was formerly associated with the Jersey City Medical Center and has conducted research on starch chemistry at the Kansas State Experimental Station.

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Tariff Report Shows Surfactant Growth

United States production and sales of surface-active agents, pesticides and perfume materials in 1954 showed advances over 1953 whereas total production and sales of synthetic organic chemicals (excluding raw materials) declined by 2.3 percent, according to the Tariff Commission's recently published report #196.

Surface-active agents covered in the report include synthetic organic detergents, wetting and emulsifying agents, but exclude soaps. Data are given in terms of 100 percent active material. In 1954 production of surfactants as a group totaled 1,026 million pounds, or 11.3 percent more than the 922 million pounds reported for 1953. Sales in 1954 were 913 million pounds, valued at 196 million dollars, compared with 732 million pounds and 145 million dollars in 1953.

Production of anionics, including sulfated and sulfonated cyclic and acyclic compounds and acyclic salts of fatty acids, amounted to 831 million pounds in 1954, or approximately 80 percent of the total amount of surface-active agents produced. This figure exceeds by 79 million pounds the output in 1953. Sales in 1954 totaled 736 million pounds, valued at 141 million dollars, compared with 589 million pounds valued at 93 million dollars in 1953. In the anionic group the principal items produced were: dodecylbenzenesulfonic acid type of surface-active agent, 386 million pounds; sulfonated petroleum aromatic compounds, 143 million pounds; and sulfated and sulfonated alcohols and esters, 130 million pounds.

Statistics for pesticides and other organic agricultural chemicals include insecticides, herbicides, rodenticides, and fungicides, seed disinfectants, plant hormones, fumigants, and soil conditioners. In 1954 production of the entire group amounted to 419 million pounds, an increase of 17.8 percent over the 356 million pounds reported for 1953. Sales in 1954 amounted to 336 million pounds, valued at 125 million dollars, compared with 334 million pounds valued at 119 million dollars, in 1953.

In this group, 1954 production of cyclic insecticides accounted for 236 million pounds or 56.2 percent of the total output of all organic pesticides and 65.9 percent of the total output of cyclic pesticides. Sales of cyclic insecticides in 1954 totaled 200 million pounds, valued at 59 million dollars. DDT was produced in largest quantity in this subgroup, accounting for 97 million pounds.

Copies of the report "Synthetic Organic Chemicals, United States Production and Sales, 1954 (Report #196, 2nd series) may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 60 cents a copy.

—— ★ ——

Capsule Corp. Reorganizes

Gunnell Capsulations, Inc., recently announced its reorganization as General Capsule Corp., Fraser, Mich., with Andrew S. Mihalik remaining as president. The firm makes completely water soluble gelatin capsules designed to hold bath oil, deodorants and other specialties. The capsules are seamless and range in size from one half minim to 25 minims. The capsules are claimed to be of uniform size and the volume of fill material is said to be accurate within one half of one percent. An illustrated booklet describing the firm's operation is available.

—— ★ ——

Porcelain Cleaner Specs.

Liquid porcelain cleaner is defined and specified in Interim Federal Specification P-P-00586 revision 1, published recently by the General Services Administration, Federal Supply Service, Washington 25, D. C.

The cleaner covered removes by chemical action iron or rust stains, urine and hard water deposits from sanitary ware porcelain (sanitary ware made with a pottery base and a glaze fired at cone 9-12) and from steel and cast iron sanitary ware covered with a coating of grade AA acid resistant porcelain enamel. Use of the cleaner requires supervision to guard against personal injury and misapplication. Sanitary ware coated with non-acid resistant porcelain enamel should not be acid cleaned since severe etching may result which would increase maintenance.

Porcelain cleaners covered shall be of one grade and two types: type 1, solubility of uric acid below 25 percent and type 2, solubility of uric acid above 25 percent.

The following requirements are established:

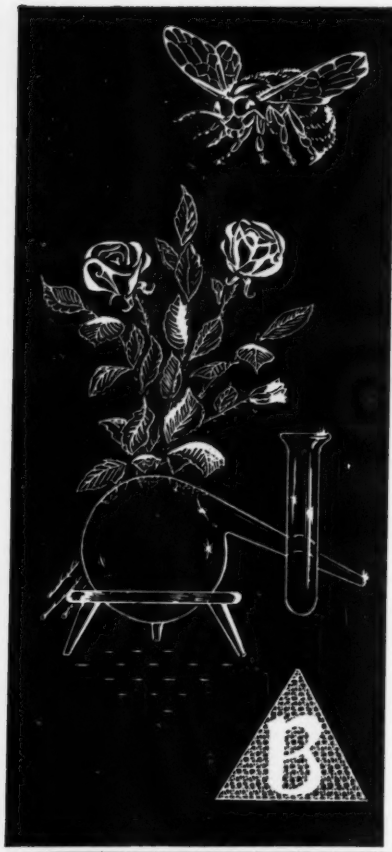
The cleaner shall contain hydrochloric acid (prepared by diluting commercial muriatic acid with water) and any necessary wetting agents, inhibitors, and other desirable additives. HCl shall assay not less than five nor more than eight percent by weight. Sediment shall not exceed 0.1 percent by volume. The cleaner shall dissolve not less than 25 percent of the weight of uric acid crystals. If the cleaner is also intended as a rest room deodorant and sanitizer or as a germicide and its registration under the Federal Insecticide, Fungicide and Rodenticide act is required by the pesticide regulation section of the Department of Agriculture it shall be so registered. Rust stains shall be removed within five minutes by the cleaner, and it shall not etch porcelain. The cleaner shall be correctly inhibited to minmize metallic corrosion.

All requirements enumerated above apply to cleaner diluted and tested as stipulated in the specification, which is available free of charge for bidding purposes from the regional offices of G S A.

—— ★ ——

CMRA to Meet in Cleveland

A joint meeting of the Chemical Market Research Association and the Commercial Chemical Development Association was held at the Carter Hotel, Cleveland, Nov. 13-15, under the chairmanship of George F. Rugar, Diamond Alkali Co., Cleveland. Theme to be studied at the meeting was: "The Chemical Fibers . . . Problems and Predictions."



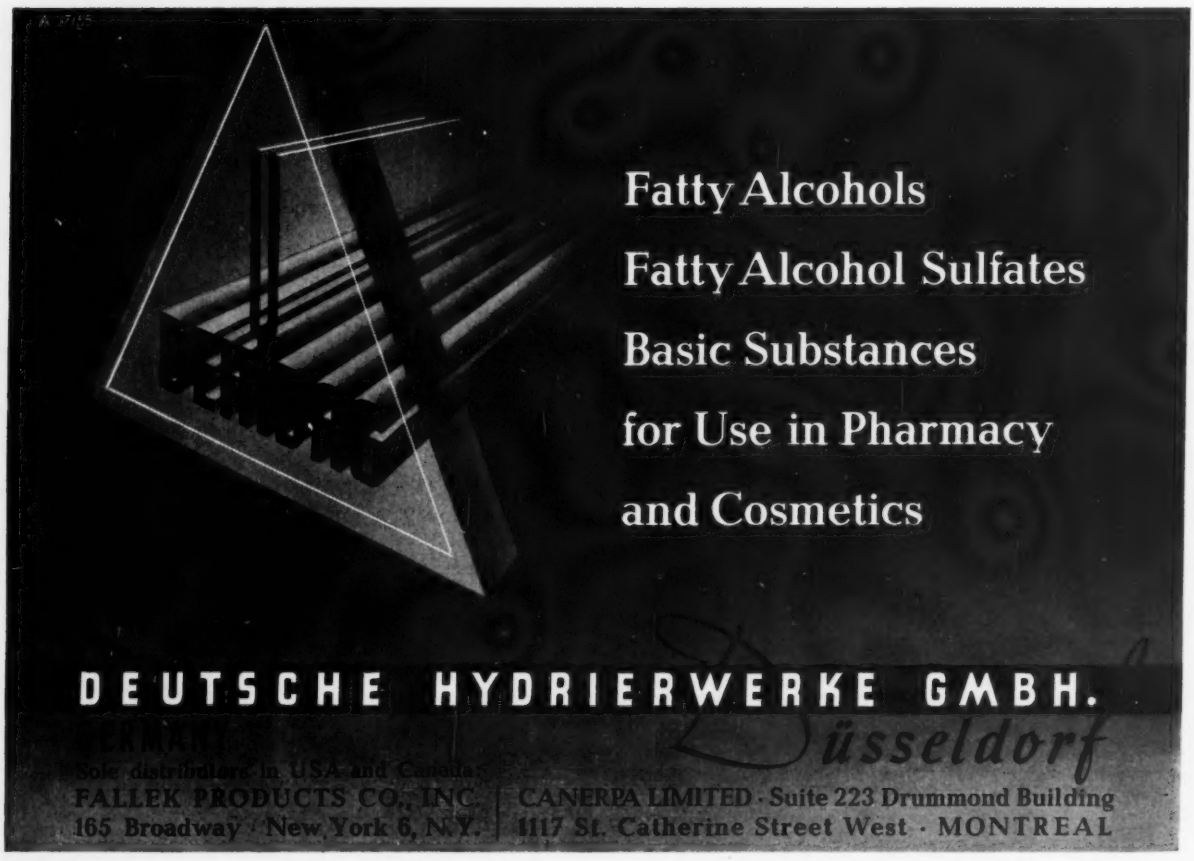
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Am. Cholesterol Plant

American Cholesterol Products, Inc., Milltown, N.J., is currently building a new plant and laboratory on a 20 acre site in Edison Township, N.J. The new unit will consist of 5,000 square feet of laboratory and office space adjoining a 23 feet high, single story manufacturing building. Blue heat absorbing glass will be used throughout. The laboratories are being constructed of marble faced blocks to facilitate maintenance and will have air conditioning, humidity control and shadowless lighting. The company expects to be using the new facilities by Feb. 1956.

—★—

N. Y. City Clean Up Group

A citizens committee has been organized with the purpose of making New York the cleanest city in the country. The Citizens Committee to Keep New York City Clean, Inc., seeks approximately $200,000 in funds to operate its program. Soaps, detergents, drug and cosmetics industries are represented on the group's finance committee by the following: William H. Cochrane, Lever Brothers Co.; Charles P. Walker, Van Amerigen-Haebler, Inc.; and William S. Auchincloss, *Oil, Paint and Drug Reporter.*

Contributions should be made payable to the committee and sent to Mr. Cochrane at Lever Brothers Co., 390 Park Avenue, New York 22.

—★—

Magnuson Officers

At the annual meeting of the board of directors of Magnuson Products Corp., Brooklyn, N. Y., the following officers were elected: Ingrid C. Magnuson, president; Russell F. Burch, executive vice-president and secretary; Charles L. Novak, treasurer; William F. Nickerson, assistant secretary; and Edward Magnuson, Jr., assistant secretary. The corporation, founded by the late Edward Magnuson, is in its 33rd year of operation in the cleaning compounds field.

—★—

Fritzsche Honors Four

Four new members were initiated recently to the Quarter-of-a-Century Club of Fritzsche Brothers, Inc., New York: Elizabeth Adelmann, Barbara Schmidt, Herman Goossen, and Walter Gorman were honored at a cocktail party and dinner held last month with forty other members and officers attending, including Frederick H. Leonhardt, chairman, and John H. Montgomery, president.

Singer to Eastco

William L. Singer, formerly manager of special sales for Allen B. Wrisley Co., Chicago, has joined Eastco, Inc., White Plains, N.Y., as merchandising manager. Eastco makes soaps and other specialties.

—★—

New SB Cream Soap

A new lanolated deodorant soap in cream form was introduced last month by Sugar Beet Products Co., Saginaw, Mich. "SBS-60" comes in blue and white one half gallon cans which fit the "SBS C-60" type dispenser. The product is a thick-bodied cream which is dispensed on the hands before wetting and may be worked into the skin en route to the washing facilities. No loss occurs through spillage or run off and the dispensers can be placed anywhere near the washing facilities. One dispenser thus can serve many users.

When dispensed according to directions one gallon of the cream is said to provide 2400 hand washes, through the absence of spillage and elimination of excess dispensing. Good detergency, mildness, lathering properties and rinsability are claimed for the product, which is suggested for use in wash and shower rooms.

At the recent meeting of the Fritzsche Quarter-of-a Century Club.



Form Premium Associates

Colgate-Palmolive Co., Jersey City, N. J., announced Nov. 1 the formation of Premium Associates, Inc., an independent company to take over the functions of the Octagon Premium Plan. The new company will be owned jointly by Colgate, Borden Co., J. H. Filbert, Inc., and William B. Reily & Co.

Officers of the newly formed organization are: James W. Reily, Jr., William B. Reily & Co., New Orleans, president; John M. Davison, executive vice-president and general manager, and Harold G. Karn, vice-president, both formerly with the Colgate premium department.

On or before Jan. 1, 1956 headquarters of the new company will be opened in its own building at 497 Broad Street, Newark, N. J. The entire staff of Colgate's premium department will be taken over by Premium Associates, which will handle all coupon redemptions for the four ownership companies and for other cooperating companies. The new group will continue with the 49 premium stores and 1,500 premium distributors of the Octagon plan. The Cooperators Premium Plan has been extended to 11 West Coast states and a new drive is being planned in the Mid-West. The plan has been in existence for over 60 years.

Stanley Co. is 90

(*From Page* 57)

W. Stanley, are also active in the company. John T. is secretary and Alfred T., assistant secretary, the latter not to be confused with his uncle and namesake, who is president of John T. Stanley Co.

Specializing in the manufacture of high grade toilet soaps, John T. Stanley Co. is one of the leading manufacturers of private brand soaps for many of the best known toiletries and cosmetic firms, including the best names of Fifth Avenue, as well as for department stores of that and other leading fashion avenues of the U. S. Stanley is also a large supplier of shampoos, bulk soap products, including laundry soaps, scouring soaps and potash soaps for laundries, hospitals, hotels, steamship companies and institutions. Besides scouring powders, liquid cleaners, detergents and shaving cream, which it markets under its own name, Stanley does a large export business in South and Central America, and in the Caribbean countries.

In the automotive chemical field, a complete line of specialties are made and sold under the trade name, "Mobo".

Another of Stanley's better known tradenamed products is "Cosmos" soap and synthetic detergent. "Cosmos" soap is sold under that tradename mostly for export. "Cosmos" detergent is sold in the United States. It is a low foam detergent that is sold widely in a 25 pound carton for automatic washing machines.

In all, Stanley has about 50 brands of various types of soaps, detergents and other specialties of its own, in addition to its wide line of private brand items, which also includes transparent soaps.

Earlier mention was made of the long time service records of a number of its employees, many of whom have been with the firm for 30 years or more. A rundown of the top executives bears this out.

Nils S. Dahl, general manager of the company, has been with Stanley for 51 years; Frank A. Cook, sales manager, is a 30 year veteran; B. J. Adams, purchasing agent, has been with the firm 29 years; Frank E. Finley, general plant superintendent, 30 years; Joseph G. Hosey, sales manager of the cosmetic department, 28 years; Ricardo Escobar, in charge of the export department, 16 years; John J. Schultz, credit manager, 35 years; C. J. Lavagnino, controller, 40 years; Frank J. Tyrell, traffic manager, 38 years; Nils S. Bay, head of the laundry department, 45 years; John T. Stanley, secretary, 35 years; Alfred T. Stanley, assistant secretary, 22 years. Alfred T. Stanley, incidentally, is a graduate of Lehigh University, who joined the Army as a first lieutenant shortly before Pearl Harbor and saw active duty in the Far East all during World War II, from which he emerged as a major.

No narrative of Stanley would be complete without a special mention of Nils S. Dahl, who joined the firm in March, 1904, as one of four office employees. He is one of the founders and the only original member of the board still active in the affairs of the Association of American Soap & Glycerine Producers. For 29 years he has been treasurer of AASGP, or the Soap Association, as it is popularly known. He has also been a director and treasurer for 21 years of the Laundry Cleaners and Allied Trades Association.

John T. Stanley Company is active in the affairs of many trade associations, including, in addition to those mentioned above, the New York City Hotel Association, the New York State Hotel Association, the American Hotel Association, the New Jersey State Hotel Association, the Toilet Goods Association, and others.

New Spray Dryer

(*From Page* 93)

ing conditions. The horizontal drying chamber is of stainless steel and provides for drying temperatures up to 600 to 800°F with a direct, gas-fired air heater. Collectors may be of centrifugal and/or multicyclone types. Automatic recording instruments maintain uniform operating conditions and provide accurate data on these conditions.

Detergents in Sewage

(*From Page* 89)

taining known quantities of detergents after treatment in a percolating filter. The effect of low concentrations of oxygen on the toxicity of detergents is also being examined. *Manufacturing Chemist*, Sept. 1955, p. 401-2.

Chemical Specialties

Leaders . . .

FOR over 40 years, leaders in the chemical specialties industry, large and small, have been active in CSMA affairs. They find that active participation in their trade association keeps them closely and promptly informed on matters of deep interest and importance. They find that exchange of views in open meetings can aid in solving many of their own individual manufacturing and marketing problems. They find that the prompt and complete bulletin service of CSMA keeps them abreast of matters vital to their business — on what lies ahead and what is being done about it.

If you are in the field of disinfectants, deodorants, insecticides, floor waxes, polishes, soap and detergent specialties, aerosol products, automotive chemicals, or other chemical specialties, it could pay you to look into the advantages of membership in the CSMA for your firm. Can we send you further information?

H. W. Hamilton, Secretary.

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Chemical Specialties Manufacturers Association, Inc.

50 East 41st Street — New York 17, N. Y.

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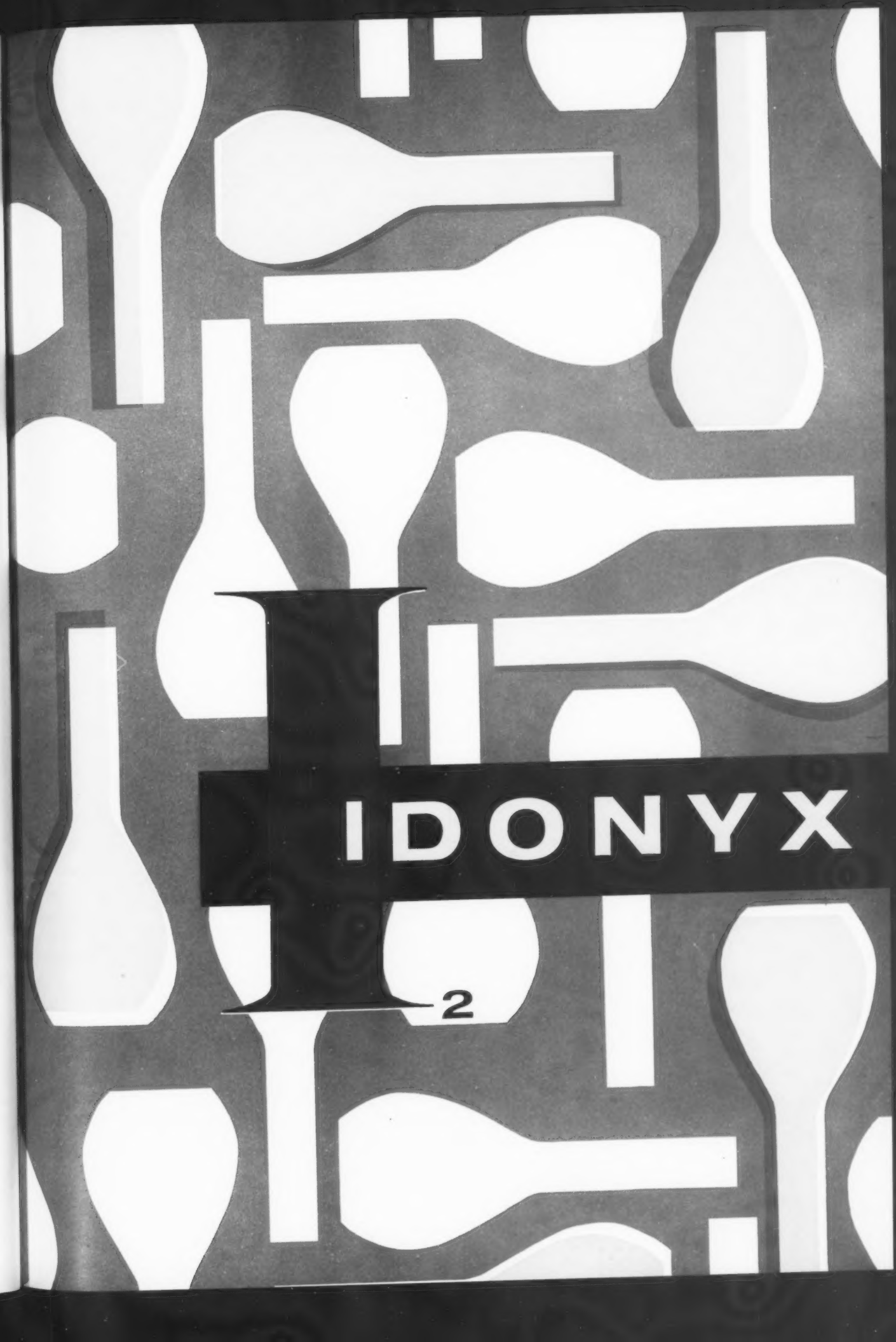
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IDONYX
2



Iodine–Its Re-emergence in Sanitization

In preparing this material on Idonyx, *the needs of all who are or will be concerned with the product have been carefully considered and, we hope, brought into balance. There are the comparatively few whose daily work requires the detailed and factual technical data that performs a most important and valuable function.*

There is, in addition, a definite need for supplying authoritative, if not strictly technical, information to those outside the laboratory, the production and managerial groups, the sales and promotion personnel. To them, too, this information is necessary; a practical guide to the properties, advantages, applications and potential of Idonyx *will help them make their products better and tell their story much more simply, lucidly and easily.*

Treading the line between lay and technical information is most difficult and not often achieved with balance. We shall succeed if we do nothing more than supply sufficient information on Idonyx *for it to be further investigated. It is our feeling that the merits of the product stand on their own and speak highly for it.*

The research that has gone into its development, the years of painstaking effort, followed by extensive laboratory and field testing, point to Idonyx *as the answer to many problems, new and old—the evolution of another product to do a better job. This has not been pure research alone: at every step it has been coordinated with the needs of the sanitizing industries; with the demands of modern production; with the hard facts of costs, and with, above all, the necessity for producing a substantial increase in both the types of application and effective strength of this type of product.*

The results of this research and experimental work are summarized in this brochure.

What Is Idonyx?

Idonyx is a concentrated *source* of iodine and yet does not contain iodine in its elementary form. Its prime function is to serve as an alternative for elemental iodine, which is highly corrosive, extremely toxic and difficult to handle. Specifically, it has been developed for the use of formulators and jobbers, for manufacturing either powdered or liquid types of iodine germicides. It is a product developed through years of research by Onyx Oil & Chemical Company, pioneers in the manufacture of sanitary chemicals for industry.

The Why and What of Iodine

Iodine has long been recognized as possessing unusual germicidal properties. In various formulations, it has been used as an antiseptic for the skin and mucous membranes and on wounds; in the preoperative preparation of the skin; for the sterilization of surgical instruments, rubber goods, clinical thermometers, etc.; for the disinfection of drinking water under emergency conditions, and as a prophylactic and therapeutic agent in diseases caused by bacteria, viruses and fungi.

Nevertheless, iodine as an industrial sanitizer in many potential fields of use has had limited usage because of certain inherent disadvantages; i.e., slight solubility in water, corrosiveness to most metals and construction materials, capacity for staining surfaces and relatively high toxicity. Furthermore, iodine is an extremely difficult material to handle and to store for any length of time, since it is unique in that it changes spontaneously into the vapor state without first passing through a liquid phase. Iodine vapor is not only exceedingly irritating but also extremely corrosive to the surrounding area.

About Iodophors

Iodine is only appreciably soluble in water but very soluble in many organic compounds. Certain of these materials also exert a solubilizing effect on iodine in water. Such is the case with the synthetic surface active agents, notably the non-ionics. Thus, an iodophor is a mixture or solution of iodine and solubilizing agent. These solutions can be dissolved in water without precipitating iodine. (See Figure 1.). The iodine in solution is germicidal and is indicated by a rich amber color. As iodine is exhausted or consumed in use, this color fades and gradually becomes colorless. This self-indicating phenomenon is unique with iodophors.

One portion of the iodine in solution is present as available iodine (AI_2), which is titratable with sodium thiosulfate; the other (CI_2) is combined with non-ionic in an organic complex and is neither available nor titratable. Both portions make up the total iodine content.

Iodophors are characterized by the following:

1. *Excellent water solubility.*
2. *Reduced iodine partial vapor pressure (low odor).*
3. *Enhanced germicidal activity.*
4. *Increased corrosion resistance.*
5. *Reduced toxicity and irritation.*

ADVERTISEMENT



Figure 1

6. Diminished staining capacity.

The solubilizing agent, being surface-active, provides wetting and penetrating properties. This ensures more intimate contact between the solution and the surface during a sanitizing or disinfecting application. The non-ionic surface active agents are also excellent detergents. The iodophors are therefore detergent-sanitizers, whereby cleaning and sanitizing may be accomplished in a single operation.

Germicidal Iodine

Many published reports have acclaimed the virtues of iodine as a germicidal agent. According to this voluminous study, the value of iodine as such an agent is indisputable. Iodine exhibits an inhibitory as well as a destructive action against a wide variety of organisms, such as bacteria, viruses, spores, yeasts, fungi, protozoa and helminthes. A striking characteristic of iodine is that within a limited concentration it is possible to disinfect many different species of organisms.

Iodine also exerts its effect over a wide pH range. However, results indicate that the germicidal activity of the iodophors greatly increases with a decrease in pH. Solutions at pH 3.0 show decidedly greater activity than pH 7.0. Therefore, for maximum efficiency they should be used at a pH 4.0 or lower. This fact is of special significance in considering the effect of alkaline waters on the pH of low concentrations obtained by high dilution. Some waters may raise the pH above 7.0 unless the product is properly buffered or acidified. This factor must be given careful consideration in the formulation of iodophors.

More about Idonyx

Idonyx is a fine, free-flowing, non-hygroscopic powder that may be handled without difficulty. It is non-irritating and chemically stable, retaining its potency over long periods of time. It contains the three ingredients that are essential for the maximum performance and efficiency of an iodophor, namely (1) iodine salts, (2) non-ionic surface active agent and (3) phosphate salt.

When used in accordance with the recommendations for this material, free iodine is released and the phosphate salts are converted to phosphoric acid. (Their relative functions are discussed below.) *Idonyx* contains approximately 16% releasable iodine (RI_2). *Idonyx* also contains additional stabilizer to assure the maintenance of iodine stability over prolonged storage periods.

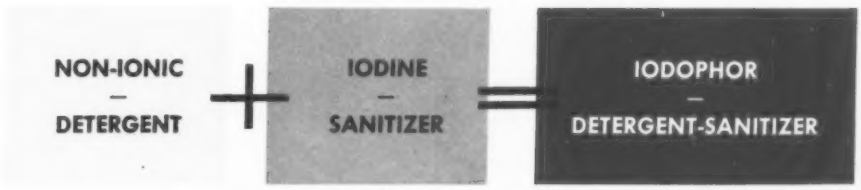
What about Non-Ionics?

Chemicals, other than iodine, are essential in formulating an iodophor. As noted, these are the surface-active agent and acid. Many surface active agents are commercially available. They differ in the degree of reactivity with iodine (complex formation) and the ability to solubilize iodine. Therefore, it is logical to expect varying degrees of germicidal efficiency and iodine stability.

In the Onyx laboratory, it has been found that the nonylphenol polyethylene glycol ether, *Neutronyx 640*, is a most effective solubilizer. This Onyx product is a water-soluble, colorless-to-light amber liquid, available as a 100% active product. It is recommended in the preparation of liquid-type iodophors. A similar product in powder form, *Neutronyx PX*, is 20% active and is recommended for the powder-type iodophors.

Preparing an Iodophor

In its simplest form an iodophor may be made by first dissolving elemental iodine in a non-ionic and then diluting with water to a desired concentration. The dissolution of iodine, however, is a long and tedious operation, requiring expendable and highly specialized equipment. Careful temperature control must be maintained to avoid undue loss of iodine by volatilization. If desired, an acid such as phosphoric, acetic, hydroxy-acetic, etc. may be added in a final step to improve the stability of the iodophor concentrate and to



I_2 IDONYX *by* ONYX

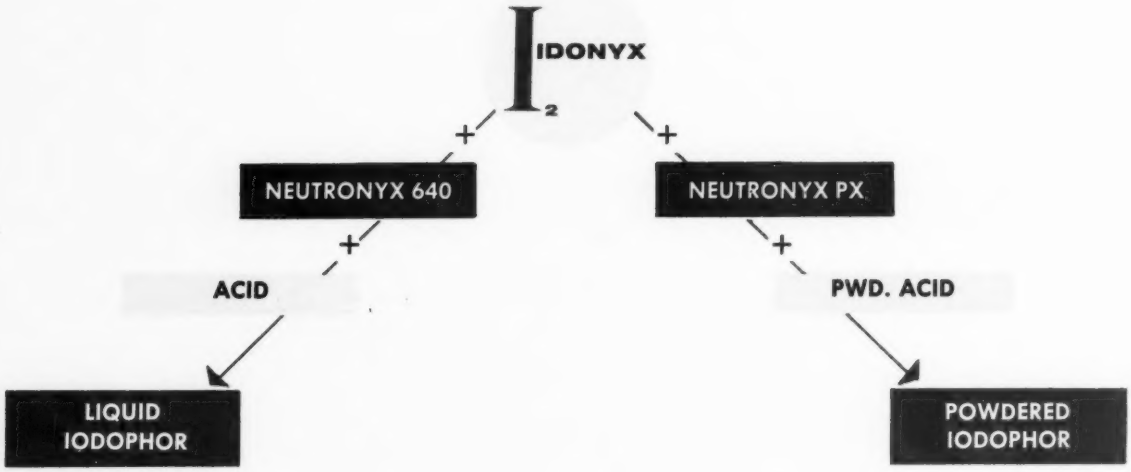


enhance the germicidal effect of iodine. Only liquid-type iodophors are possible with such a procedure.

With *Idonyx* as the source of iodine, the procedure is less troublesome and does not require particularly special equipment. Glass, glass-lined or stainless steel, however, is preferred, in preparing the liquid type. For the powdered type, any simple mixing equipment is suitable.

To prepare the liquid, dissolve *Idonyx* in water, add the non-ionic and then hydrochloric acid to release iodine and to form phosphoric acid. The final step is the addition of more acid, preferably phosphoric. To prepare the powder, the powdered ingredients are combined in the proper proportion and then mixed until homogeneous.

IDONYX IN THE PREPARATION OF TYPICAL LIQUID AND POWDERED TYPES OF IODOPHORS



Suggested Iodophor Formulations

A. Liquid Type (containing 1.75% I_2)

12.5 parts	*Idonyx* (16% RI_2)
15-30 "	*Neutronyx 640*
10 "	Hydrochloric acid (23° Be)
10-15 "	Phosphoric acid (85%)
to 100 "	Water

B. Powder Type (containing 1.75% I_2)

12.5 parts	*Idonyx* (16% RI_2)
40-50 "	*Neutronyx PX*
25-37.5 "	Sulfamic Acid

While the suggested formulations are broad and flexible, various applications or conditions may require special attention. The Onyx laboratories will gladly assist in the development of formulations to meet such individual requirements, without obligation.

IDONYX *by* **ONYX**

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Uses of Iodophors



In **dairy farms** and **plants** to sanitize or clean and sanitize milking and processing equipment and also to wash cows' flanks and udders.

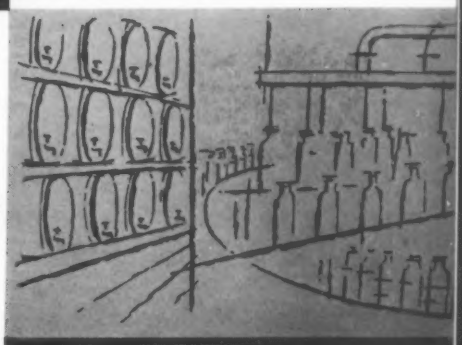


In **restaurants, taverns, soda fountains, luncheonettes** and **cafeterias** to sanitize or clean and sanitize dishes, glassware, cooking and eating utensils.

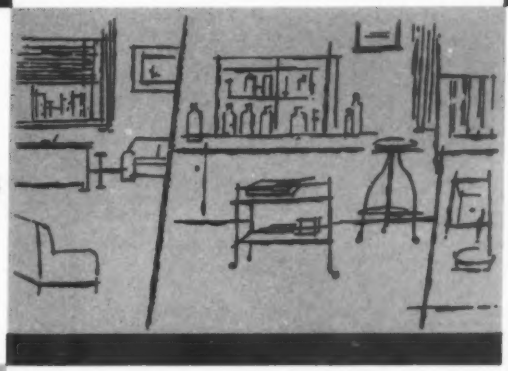


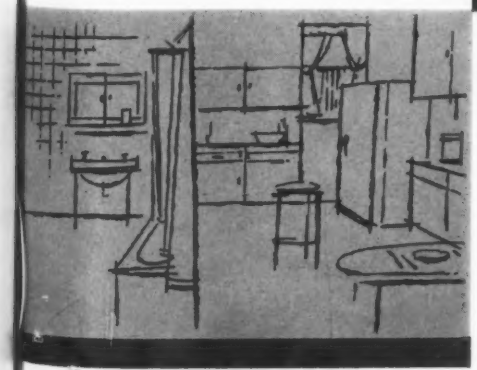
In **food processing plants** to sanitize or clean and sanitize trays, tables, processing and packaging equipment.

In **beverage plants, wineries** and **breweries** for the sanitary maintenance of storage facilities, vats, pipes and lines, filling and mixing equipment.



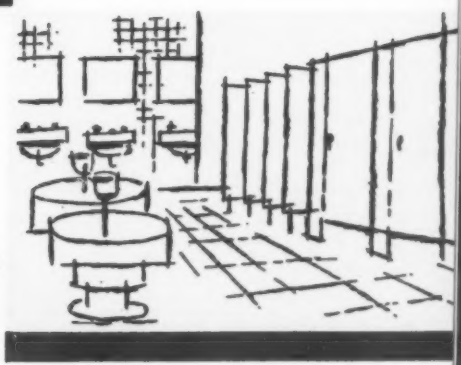
In **hospitals, institutions** and **professional offices** to disinfect instruments, apparatus, dishes, utensils and equipment and for terminal disinfection.





In the **home** to sanitize and disinfect surfaces, food storage areas, toilet bowls, garbage pails, etc.

As a **general disinfectant** and **sanitizing agent** for walls, floors, sanitary facilities and all types of equipment.



For complete information on the various applications of *Idonyx*, please request available and future data sheets.

IDONYX *by* **ONYX**

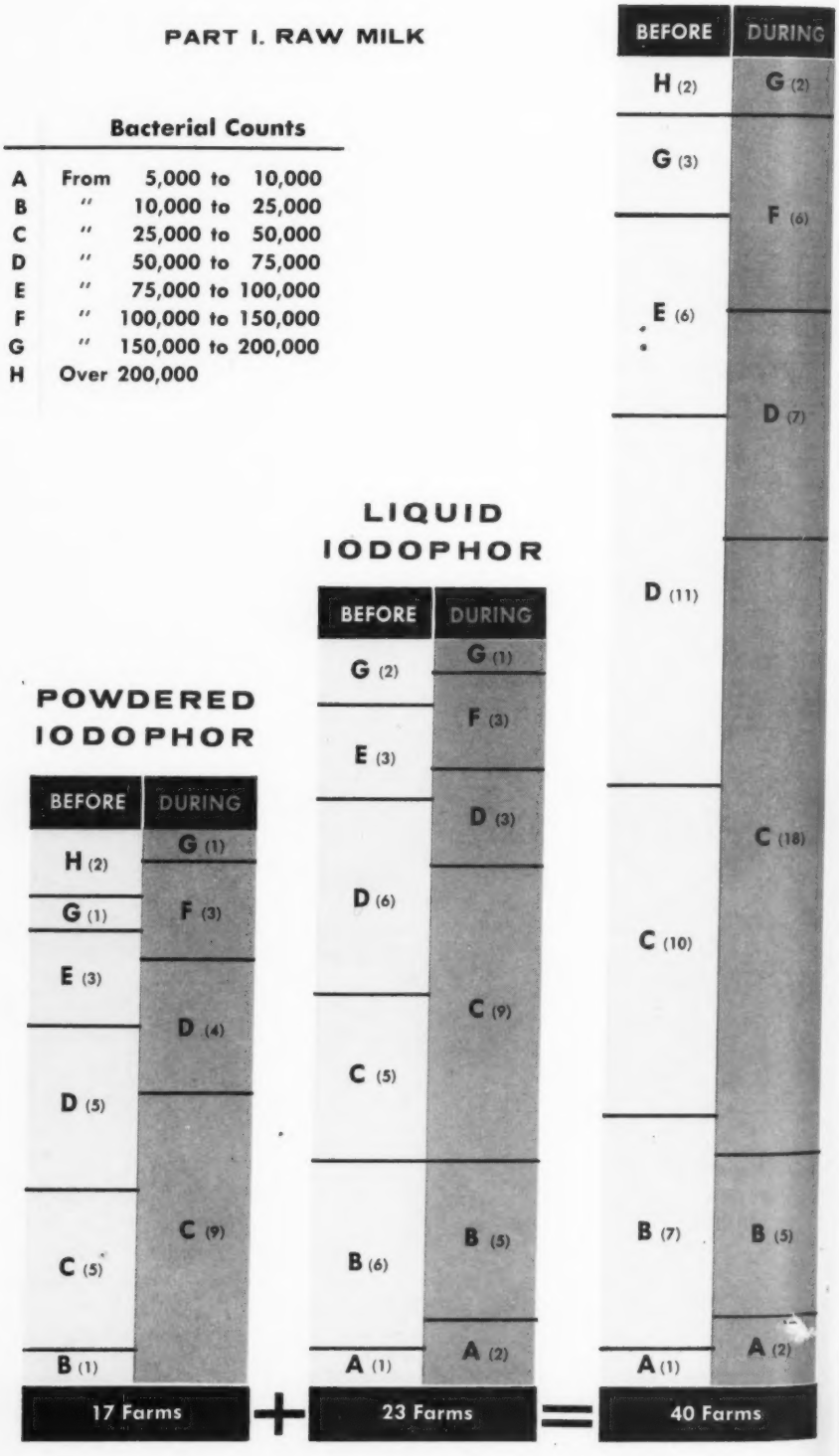
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Distribution of Farms by Average Bacterial Counts of Raw and Pasteurized Milk in Sample Area Before and During Field Tests with Iodophors

Field Tests

Iodophors formulated with *Idonyx* for use as dairy sanitizers were tested under actual field conditions on many farms in various sections of the U.S. In these tests both the powdered and liquid-type iodophors were used. They were substituted for the sanitizer or cleaner-sanitizer normally used by these farmers, with no change in standard practice. The results indicate performance and efficiency comparable to other acceptable materials. The accompanying diagram represents the distribution of farms in a particular area, by the average bacterial counts obtained—prior to the test and during a three-month test period.



ADVERTISEMENT

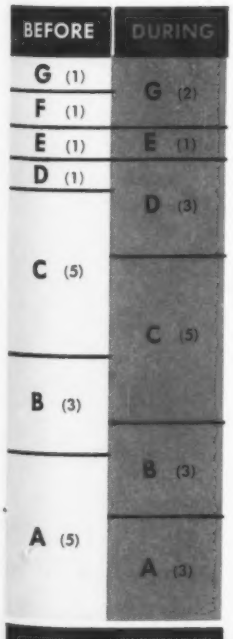


PART II. PASTEURIZED MILK

Bacterial Counts

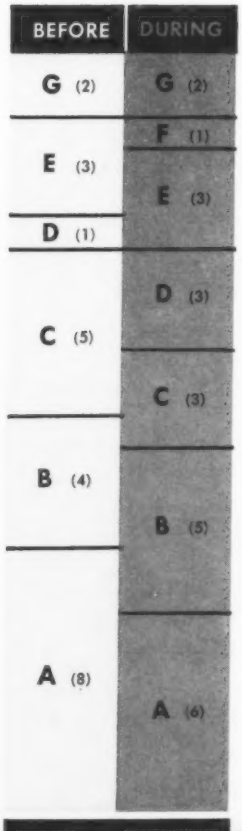
A	Under 500
B	From 500 to 1,000
C	" 1,000 to 2,500
D	" 2,500 to 5,000
E	" 5,000 to 7,500
F	" 7,500 to 10,000
G	Over 10,000

POWDERED IODOPHOR



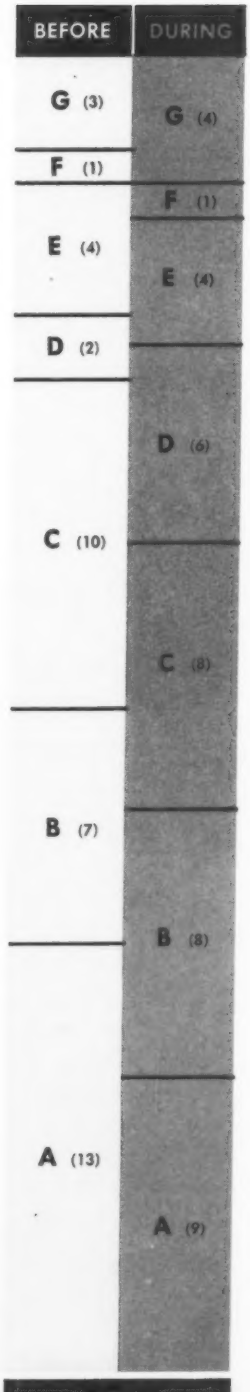
17 Farms

LIQUID IODOPHOR



23 Farms

=



40 Farms

IODONYX by ONYX



Laboratory Tests

In accordance with our program of evaluating the iodophors, laboratory tests on *Idonyx* were conducted by Onyx and by several independent laboratories. Typical results by the Weber and Black Method with liquid and powdered types of iodophors are summarized in the table below. The interpretation of this data is based on the United States Public Health Service recommendations that effective germicides when tested in th use concentration should produc approximately 100% kill in not mor than about 30 seconds when dilute in the water actually used. It will b noted that the liquid and powdere iodophors were practically equal i bactericidal effectiveness. This wa true even in the presence of hard water, whole milk or dishwash soi

Bactericidal Effectiveness of Iodine Detergent Sanitizers

Kind and concentration of product tested	MINIMUM TIME IN SECONDS FOR 99.9999% KILL					
	Dist. water	Hard water (500 ppm.)	1% Whole milk	1% Dishwash soil	1% Whole milk + hard water (500 ppm.)	1% Dishwas soil + hard water (500 ppm.)
***Ps. aeruginosa* 103,000,000 per ml.**						
12.5 ppm. Iodine powder	15	15	60	15	—	—
12.5 ppm. Iodine liquid	15	15	60	30	—	—
25 ppm. Iodine powder	15	15	15	15	15	15
25 ppm. Iodine liquid	15	15	15	15	15	15
***M. pyogenes* var. *aureus* 104,000,000 per ml.**						
12.5 ppm. Iodine powder	15	15	300	30	—	—
12.5 ppm. Iodine liquid	15	15	300	30	—	—
25 ppm. Iodine powder	15	15	30	15	30	15
25 ppm. Iodine liquid	15	15	30	15	30	15
***E. coli* 118,000,000 per ml.**						
12.5 ppm. Iodine powder	15	15	15	15	—	—
12.5 ppm. Iodine liquid	15	15	15	15	—	—
25 ppm. Iodine powder	15	15	15	15	15	15
25 ppm. Iodine liquid	15	15	15	15	15	15
***S. typhosa* 99,000,000 per ml.**						
12.5 ppm. Iodine powder	15	15	15	15	—	—
12.5 ppm. Iodine liquid	15	15	15	15	—	—
25 ppm. Iodine powder	15	15	15	15	15	15
25 ppm. Iodine liquid	15	15	15	15	15	15

Source: Mueller, J. Milk & Food Tech., June, 1955.

The data and suggested formulations in this brochure are based on information we b to be reliable. Because of the numerous factors affecting results, all Onyx chemical pr are sold with the understanding that purchasers will make their own tests to determi suitability of these products for their particular use.
Statements concerning the use of Onyx products are not to be construed as recomm the infringement of any patent, and no liability for infringement arising out of an use is assumed.

I$_2$ IDONYX PATENT PENDING *a product of* INDUSTRIAL DIVISION

ONYX OIL & CHEMICAL COMPANY

WARREN & MORRIS STS., JERSEY CITY 2, N. J.

For Export: ONYX INTERNATIONAL • Jersey City 2, N. J.

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the wax refinery of

THE RIVER PLATE CORPORATION

recently completed and now in full operation,

is the very finest in the industry.

HERE are ultra modern facilities in one completely-integrated plant, precision-controlled through advanced electronic devices for highest degree of uniformity in refining and blending.

YOU CAN DEPEND ON RIVER PLATE

for satisfactory fulfillment of every requirement in vegetable and animal waxes. Our technical staff is at your service for developing new, or following through your own, specified compounds and blends.

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WAX AND CHEMICAL DIVISION

Refinery & Sales Offices: 573-589 FERRY ST., NEWARK 5, N. J.

Telephone MArket 4-0410

EXECUTIVE OFFICES: CHRYSLER BLDG., NEW YORK 17, N. Y.

THERE IS NO ESCAPE FROM thanite®

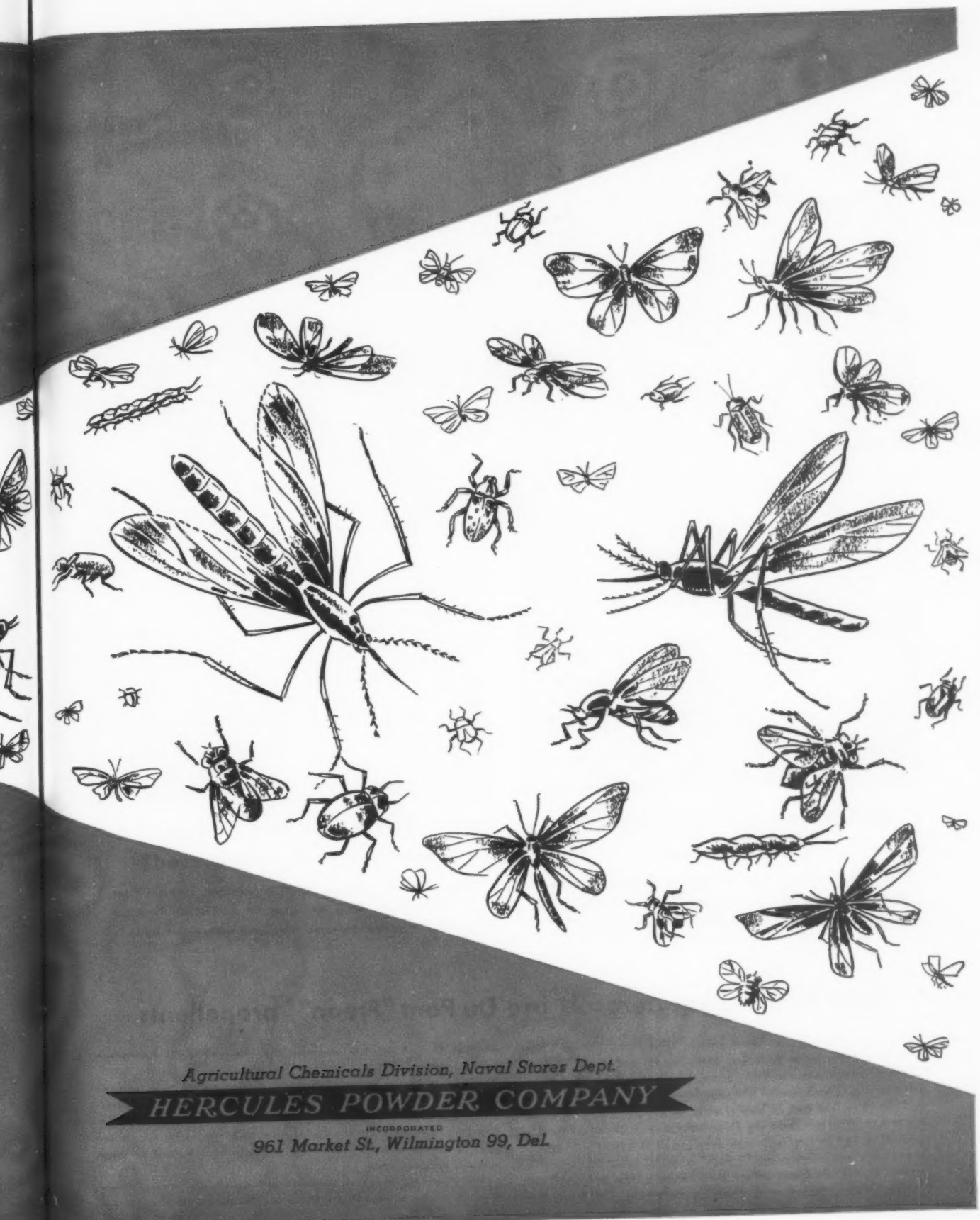


When Thanite is included in any formulation, mosquitoes and flies can't climb above the fog or mist and "wait it out." Thanite's quick knockdown makes them stay put and assures maximum kill. That's one good reason why so many pest control experts add two to four percent Thanite to DDT and other residuals.

In household sprays and aerosols, Thanite can partially replace higher costing ingredients while still providing quick knockdown and high kill. As little as two percent Thanite in household sprays and one percent in aerosols will provide maximum efficiency and economy. Technical data on the properties and uses of Thanite is available by writing to Hercules.

HERCULES POWDER COMPANY

HT56-2



Agricultural Chemicals Division, Naval Stores Dept.

HERCULES POWDER COMPANY

INCORPORATED

961 Market St., Wilmington 99, Del.

What the consumer had to say aerosols would fill a book, and



Which type of room deodorant is preferred?

Get the answers to this and other questions on household product preferences. New Du Pont survey tells what the housewife looks for in an aerosol product.



What kind of personal deodorants are purchased?

Cream, stick, squeeze bottle or aerosol—the Du Pont survey has the facts on consumer purchases. Find out what the consumer buys, why and where she buys it.

Why best-selling aerosols use Du Pont "Freon"* propellents

Ever since the original "bug bomb," Du Pont "Freon" has been the best propellent for best-selling aerosols. Today, "Freon" propellents are the most widely used of all aerosol propellents. The reasons are simple—quality, purity, safety and service. No one is better able to supply just the right aerosol propellents than Du Pont—manufacturer of "Freon".

Quality and purity are assured by Du Pont's nearly 25 years' experience manufacturing "Freon" to strict laboratory standards. "Freon" propellents are safe because they are nonflammable, nonexplosive and virtually nontoxic. Du Pont has served the aerosol industry since it started with laboratory assistance and market surveys like the new 1955 consumer aerosol survey.

If you're in the aerosol business or plan to be, take advantage of Du Pont's vast background of experience and intimate knowledge of all phases of aerosols. Take advantage, too, of Du Pont's ability to supply just the right combination of one or more "Freon" propellents best suited to your aerosol product.

For more information or technical assistance, mail the coupon or write to E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.

about it did...





Does the dispenser affect hair-spray use?

How well do consumers like aerosols for hair sprays and other personal products? New survey gives you the facts to rate and improve acceptance of your product.

HERE'S SALES-BUILDING HELP FOR YOU

• Du Pont's new survey outlines the buying pattern for a variety of household and personal products. Preferences and buying habits, likes and dislikes . . . here's everything you need for your aerosol marketing plans. Send in the coupon below and get the facts about today's consumer aerosol market.

MAIL THIS COUPON TODAY FOR FREE CONSUMER AEROSOL MARKET SURVEY



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SAFE PROPELLENTS

"Freon" is Du Pont's registered trade-mark for its fluorinated hydrocarbon propellents

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2420—13 Nemours Building, Wilmington 98, Delaware

☐ Please send your new 1955 market survey "Inside the Consumer Aerosol Market".

☐ I want to learn how I can get technical assistance on aerosols.

*Name*_____ *Position*_____

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1312

IS YOUR AEROSOL FORMULATION

HIGHLY EFFECTIVE

against . . .

ROACHES AND FLIES

and SAFE TO USE in the KITCHEN

"NEW IMPROVED"

SULFOXIDE

the SUPERIOR Synergist for

Pyrethrum is your ANSWER

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HOW *glass aerosol* CAN BOOST THE *sales appeal* OF *your products*

Package for spray-dispensing... and do it in glass. This combination gets results! Push-button containers invite immediate attention and examination ... give both men and women shoppers cleanliness, protection, economy. Glass, of course, has always had universal sales appeal. Personal products, especially, like perfume, cologne, sun tan oil, hair dressings, deodorants, etc., sell faster when they're spray-dispensed in glass. Glass aerosols offer high content visibility, shelf promotion of product color, and an unlimited range of inexpensive bottle shapes and sizes... for flexible pricing in highly competitive trades. Capitalize on the trend to glass aerosols now. Boost profits. Contact Continental for a free product evaluation today.



Clear hour-glass bottle.

Frosted hour-glass bottle.

Clear "simplicity" bottle.

Wheaton plastic-coated bottle.

Wheaton clear oval bottle.

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✻ **Complete Filling Service.** *We do not merchandise any products of our own. Our sole operation is contract and custom filling of containers with your products ... liquid, pressurized or aerosol... in glass or cans.*

✻ **Extensive Laboratory and Production Facilities.** *Continental conducts chemical analysis and continuing research on dispensing methods and containers. Filling equipment is the finest in the industry, geared to handle orders of any size. Quality control and inspection safeguard your shipments.*

✻ **Warehousing and Drop Shipping in Bulk Lots.** *Extensive storage space lets you use our two centrally-located plants as national distribution points with consequent savings on freight. We handle shipping and paper work. Orders go through on schedule.*

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CONTINENTAL FILLING CORPORATION

PLANTS • DANVILLE, ILLINOIS — HOBART, INDIANA

AEROSOL SERVICE

Announcement

The Polak & Schwarz Research Department has concluded its research in the field of Aerosol. The experience gained is available to Aerosol Manufacturers. Pending these investigations Polak & Schwarz refrained from any activity in this sphere. They now wish to draw the attention of interested parties to the services they can render in the whole field of Aerosols from propellent to active ingredient and from container to perfume.



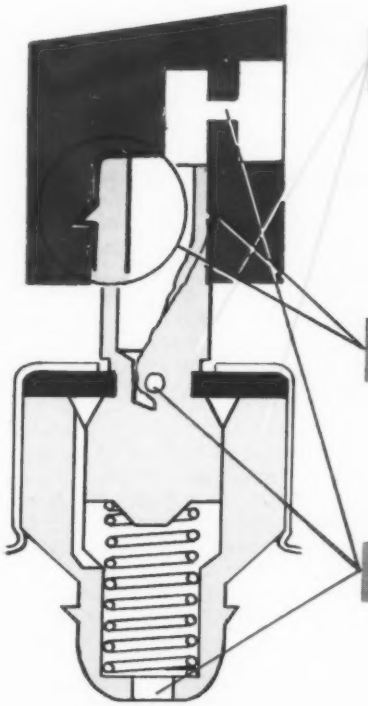
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POLAK & SCHWARZ, INCORPORATED 667 Washington St. New York 14, N. Y.

WHY Seaquist 750NN AEROSOL VALVE IS BETTER FOR YOUR PRODUCT

INSECTICIDES
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and other pressure dispensed products





PATENTS PENDING

NYLON CONSTRUCTION

. . . ideally suited for formulas that corrode metal valves, as well as for non-corrosive products . . . eliminates guess work in selecting the right valve for your product.



SEALING & RETAINING RING

Inhibits seepage between stem and button. Assures cleaner handling by the customer. Eliminates lost buttons.

3 CONTROLLABLE ORIFICES

. . . means uniform spray, adaptability to a wider variety of pressure dispensed products. Another good reason why the Seaquist 750NN Aerosol Valve is better for your product.

For your pressurized product, look to Seaquist for laboratory assistance in tailor-making it for greater economy, top performance and wider consumer acceptance.

Seaquist MANUFACTURING CORPORATION
CARY, ILLINOIS

A PIONEER IN AEROSOL VALVES

Why compromise with certainty, with safety?
In manufacturing insecticides . . .

Be Certain - Be Safe with African Pyrethrum

Nature's Own Insecticide Base That Alone Is

Toxic to All Insects . . .

Harmless to Human and to Animal Life

PYRETHRUM alone assures:

- Unsurpassed quick knock-down
- Economy in lower concentrations with synergists
- Rapid dispersal
- High penetration

With PYRETHRUM you can guarantee protection of the highest order for:

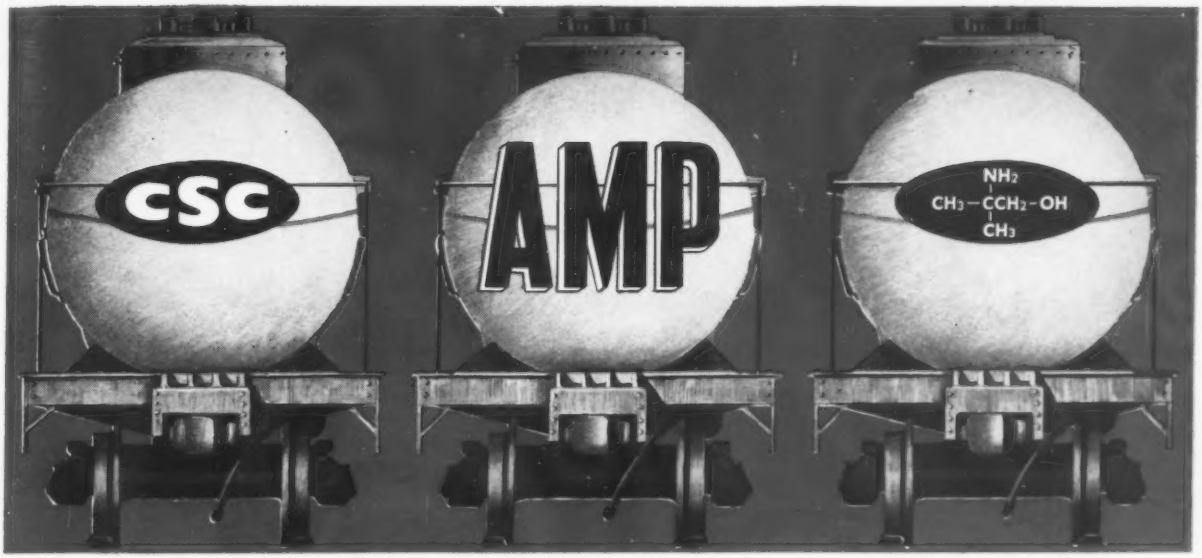
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African Pyrethrum

Only the best base assures the best finished insecticide

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2-AMINO-2-METHYL-1-PROPANOL

as a highly effective emulsifier and chemical intermediate

AMP – another of the versatile CSC Nitroparaffin derivatives, is considerably more efficient than many commonly used emulsifying agents. Less AMP is required to give equal emulsion performance.

AMP oleate is a powerful emulsifying agent for water-wax emulsions. Its effectiveness in lower concentrations than are required for comparable results with other widely used amine soaps makes AMP oleate an economical and desirable emulsifying agent. At relatively low concentrations of AMP oleate, the water-wax emulsions are stable and unchanged after repeated freeze-thaw cycles and heat stability tests. High gloss and excellent leveling are characteristic properties of AMP oleate floor wax emulsions when proper concentrations of AMP and oleic acid are used.

The higher fatty acid soaps of AMP are powerful emulsifying agents for use in such materials as cleaners, polishes, dressings, self-polishing floor waxes and emulsion-type paints. AMP's moderately high boiling point minimizes evaporation loss and objectionable fumes during manufacture of emulsions – without detracting from desirable water resistance and durability of film. With its advantage of low combining weight and its ability to emulsify a wide range of materials, AMP may solve your emulsifying problem.

AS A CHEMICAL INTERMEDIATE

Readily undergoes a wide variety of reactions. AMP forms substituted amides with esters, anhydrides and acyl halides. Also reacts with many other compounds including alkyl halides, aldehydes, ketones, and carbon disulfide. AMP can be used in the synthesis of efficient surface-active agents and detergents, and vulcanization accelerators for rubber.

Also suggested for synthesis of dyestuffs, photographic developers, and pharmaceuticals. Investigate the many ways in which AMP can help improve your products or processes.

PHYSICAL PROPERTIES	
Molecular Weight	89.14
Boiling Point, °C	165760mm
Melting Point, °C	30-31
Specific Gravity at 20/20°C	0.934
pH of 0.1M Aqueous Solution at 20°C	11.3
Solubility in Water at 20°C, g/100 ml	Completely Miscible

SPECIFICATIONS	
Neutral Equiv.	88.5-91.0
Color, APHA, max.	20
Water, by wt., max.	0.8%
Distill. Range	156°C-177°C
Below 161°C max.	10%
Below 168°C max.	5%
Odor	Characteristic
Non-volatile matter by weight, max.	0.005%

OTHER AMINOHYDROXY COMPOUNDS

AB (2-Amino-1-butanol) $CH_3CH_2\,CHNH_2CH_2OH$

AMPD (2-Amino-2-methyl-1, 3-propanediol) $CH_2OHC(CH_3)NH_2\,CH_2OH$

AEPD (2-Amino-2-ethyl-1, 3-propanediol) $CH_2OHC(C_2H_5)NH_2\,CH_2OH$

TRIS AMINO (Tris[hydroxymethyl] aminomethane) $(CH_2OH)_3\,CNH_2$

Write for samples and Technical Data Sheet No. 18.

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260 MADISON AVENUE NEW YORK 16, N. Y.

CSC INDUSTRIAL CHEMICALS



RECOGNIZE HER NOSE

The importance of Mrs. Buyer's nose can't be underestimated in considering the selling factors involved in the successful merchandising of your product.

- **Her nose influences the first purchase in the store.**
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. . . give your product a forceful selling factor through the use of knowingly effective odor treatment.

VAN AMERINGEN-HAEBLER, INC.

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Better basic waxes insure better wax products; Petrolite Waxes are unsurpassed in quality.



TABLE OF SPECIFICATIONS

MICROCRYSTALLINE

CROWN WAX	M.P. °F.	PENETRATION	COLOR—NPA	ACID NO.	SAP. NO.
15	180 Min.	4 to 6	4-5	14-16	50-60
23	180 Min.	4 to 6	4-5	20-25	55-65
36	180 Min.	5 to 7	5-6	30-35	75-85
50	180 Min.	3 to 5	dark	10-20	65-75
180	180 Min.	15 Max.	2-2½	Nil	Nil
200	190 Min.	8 Max.	brown	Nil	Nil
500	190 Min.	8 Max.	2-2½	Nil	Nil
*700	190 Min.	4 Max.	2-2½	Nil	Nil
*1035	195 Min.	2 Max.	2-2½	Nil	Nil
Jet Black	185 Min.	11 to 16	black	Nil	Nil

*Available in powdered form (16 mesh max.)

SYNTHETIC AND SPECIAL WAX

PRODUCT	M.P. °F.	PENETRATION	COLOR—NPA	ACID NO.	SAP. NO.
*P-20	210-220	2 Max.	3 Max.		
*P-25	210-220	2 Max.	3 Max.		
PE-100	195-200	2-3	4-6	15-20	45-55
R-50	190-200	2 Max.	4½ Max.	40-50	65-80
PC-13	185-195	6 to 8			

*Available in powdered form (16 mesh max.)

PHYSICAL CHARACTERISTICS

HARDNESS

HIGH GLOSS

UNIFORMITY

PURITY

TOUGHNESS

FLEXIBILITY

COMPATIBILITY

Most Petrolite waxes are shipped in paperboard cartons containing 8 ten pound slabs each. Jet Black Wax is shipped in 300 pound drums. Petrolite 700 and 1035 are available in powdered form, approximately 170 pounds to the fibre drum. Shipments are made from Jersey City, Chicago, Los Angeles or Kilgore, F.O.B. shipping point nearest customer.

For complete information, prices, technical data or samples, write or call

PETROLITE CORPORATION

WAX DIVISION

Chrysler Building, New York 17, N. Y. ★ P. O. Box 390, Kilgore, Texas

Petrolite

MICROCRYSTALLINE AND SYNTHETIC WAXES

P56-E



For no-rub liquid polishes with

MORE WEAR THAN TRAFFIC CAN BARE

. . . formulate with **DUREZ** *resins*



Longer wear is fine, every customer wants it. But there's plenty more they're looking for in liquid wax emulsions, and this is why Durez phenolic resins are so widely used in these polishes today.

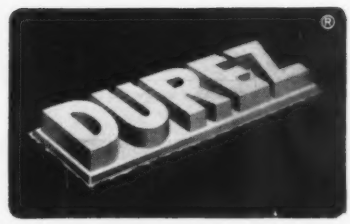
Shelf life, economy — have been improved with inclusions of resin ranging from 20% to 50% of the wax-resin blend.

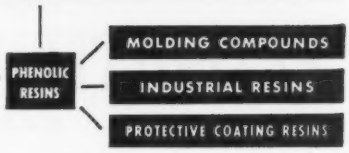
Whether you are working with vegetable or micro-crystalline waxes, your quality control is simplified when you use Durez resins. We produce our own basic synthetics, therefore can maintain batch-to-batch uniformity in the highest degree.

Our experience is yours for the asking. Samples too, if you want them.

DUREZ PLASTICS DIVISION
HOOKER ELECTROCHEMICAL COMPANY
412 WALCK ROAD, NORTH TONAWANDA, NEW YORK

Export Agents: Omni Products Corporation, 464 Fourth Avenue, New York 16, N. Y.





PHENOLIC RESINS THAT FIT LIQUID POLISHES
for the new era of competition

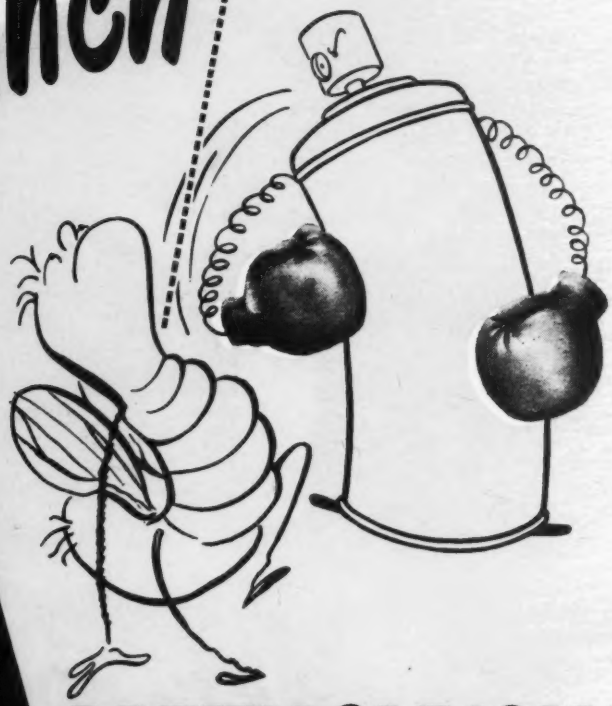
RESINS TO FIT YOUR FACILITIES

HIGH MELT. Durez 219 (135° C.) is emulsifiable and compatible with vegetable and mineral waxes. Durez 225 is even higher melting, and produces harder and tougher films. The hardening properties of these resins can be used to particular advantage with oxidized micro-crystalline waxes.

LOW MELT. For the convenience of manufacturers using steam-jacketed kettles, Durez resins of the high melt types are furnished in modified form with a melting point suitable for this type of equipment. These resins — Durez 13560 and Durez 14140 — melt at approximately 60° C.


NOW! A. R. C. offers America's Finest
MOST COMPLETE LINE
of pressurized package valves!
Featuring
A.R.C's NEW
NYLON K-38 VALVES
For Spray, Foam and Glass Bottle Products
Now every manufacturer of spray or foam aerosols in metal or glass containers — can take advantage of the research and engineering that makes A.R.C.'s K-38 Valve so outstanding! All the proven advantages of this popular valve have been incorporated in the NEW Improved NYLON K-38 series, headlining A.R.C.'s new fully-expanded line. You get the zip of K-38's "light touch" spray action . . . the smartness of K-38's clean-cut styling . . . the strength of K-38's outstanding construction —plus the versatility of NYLON—in the widest selection of internal meterings to best meet your packaging requirements. Yes, whatever your needs—see A.R.C.— before you buy any valve.
Send today for your complete kit of these new improved NYLON K-38 A.R.C. Test valves, and see the difference they make. Write Department M.
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743 Circle Avenue, Forest Park, Ill. Phone FO 6-4880

2 in 1 punch*



* for the quick ***knock-down*** and positive ***stay-down*** results . . . . .

specify

GEIGY METHOXYCHLOR

for your aerosol and spray formulations

Methoxychlor is a safe, economical, chemical relative of DDT. Its low toxicity to man and animals, combined with its long residual toxicity to insects makes it an ideal insecticide for use in aerosol formulations.
GEIGY METHOXYCHLOR is compatible with pyrethrins, allethrin, and piperonyl butoxide.

GEIGY METHOXYCHLOR "20"
Designed for use in the preparation of household sprays, dairy barn sprays, aerosols and other products where small amounts of methoxychlor are desired in the finished products.

GEIGY METHOXYCHLOR "90"
A concentrated methoxychlor product for use in the formulation of methoxychlor sprays and aerosol solutions.

GEIGY CHLOROBENZILATE* "80"
Contains 80% technical Chlorobenzilate for formulation of dilute dust mixtures and aerosol solutions. Chlorobenzilate is extremely effective in controlling many species of mites attacking ornamental, greenhouse and nursery stock.
*"CHLOROBENZILATE" is the brand name for miticides and acaricides sold by Geigy Agricultural Chemicals, division of Geigy Chemical Corporation.

ORIGINATORS OF Geigy DDT INSECTICIDES

GEIGY AGRICULTURAL CHEMICALS
Division of Geigy Chemical Corporation
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Distributed in Canada by **Canadian Industries (1954) Limited,** Montreal, Quebec

Sure! Everybody's got a Pine Oil Disinfectant...

BUT THERE'S ONLY ONE

Varco Pine



VarcoPine has captured the true forest green color from pine needles! And along with it a ***new, lighter, nicer*** pine scent with a decided tang! It is super-powered too. One gallon of VarcoPine makes 100 gallons of powerful germ-killing solution!

VarcoPine *is* different from any other pine oil disinfectant you have used!

Better 6 Ways!

1 Natural green color of pine needles.	**2** Immediately soluble in hard or soft water.	**3** Perfect stability.
4 Snow-white emulsion.	**5** Made from pure steam distilled pine oil.	**6** Refreshing NEW pine scent.

An Innovation in the Field!

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Please rush my sample of VarcoPine at once and quote me in various size containers.

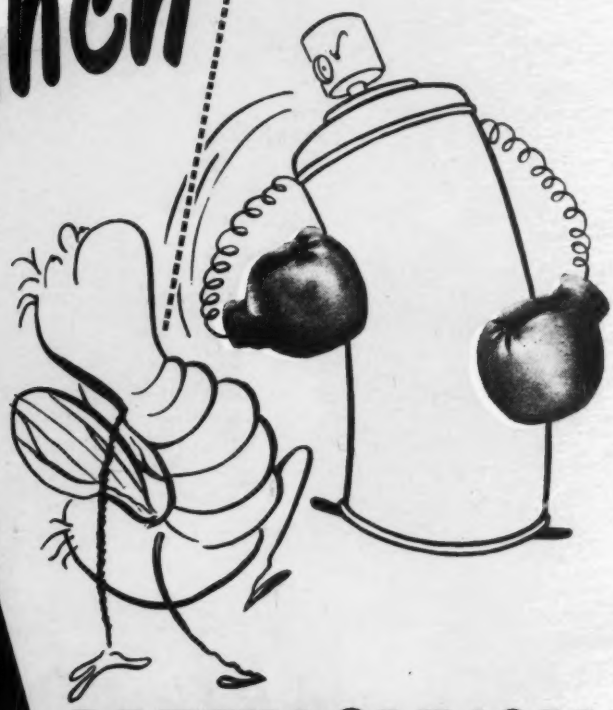
Name.....

Company.....

Street.....

City.....State.....

2 in 1 punch*



* for the quick ***knock-down*** and positive ***stay-down*** results.....

specify

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for your aerosol and spray formulations

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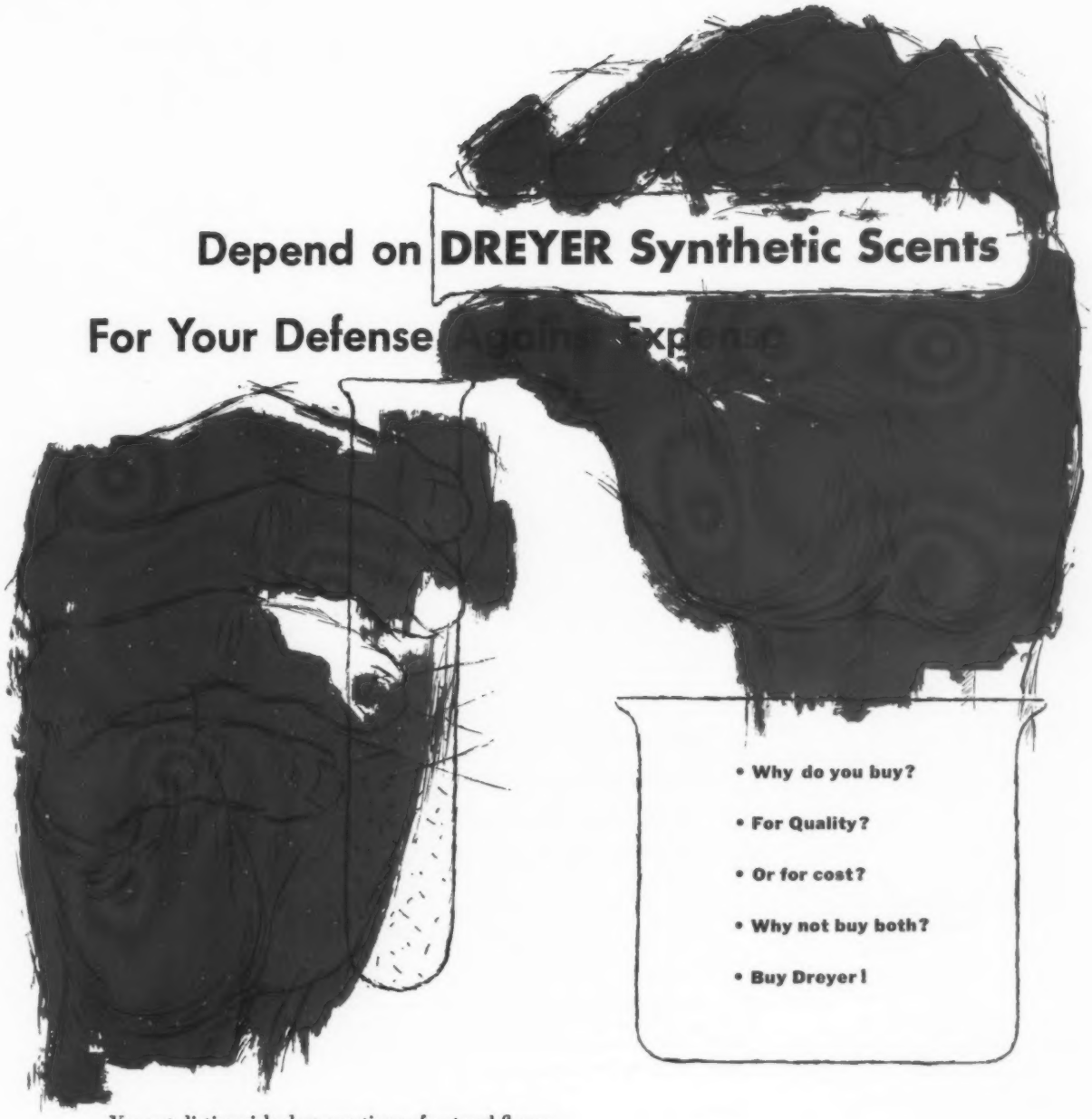
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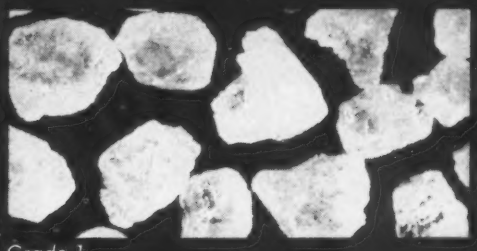
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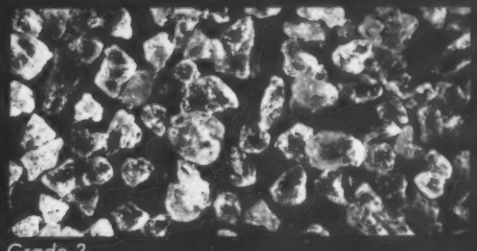
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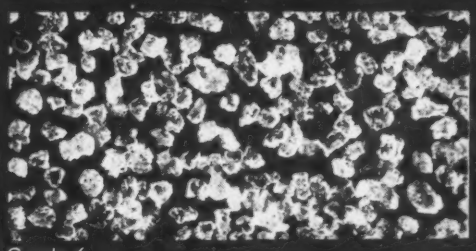
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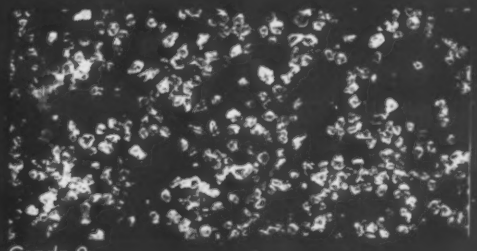
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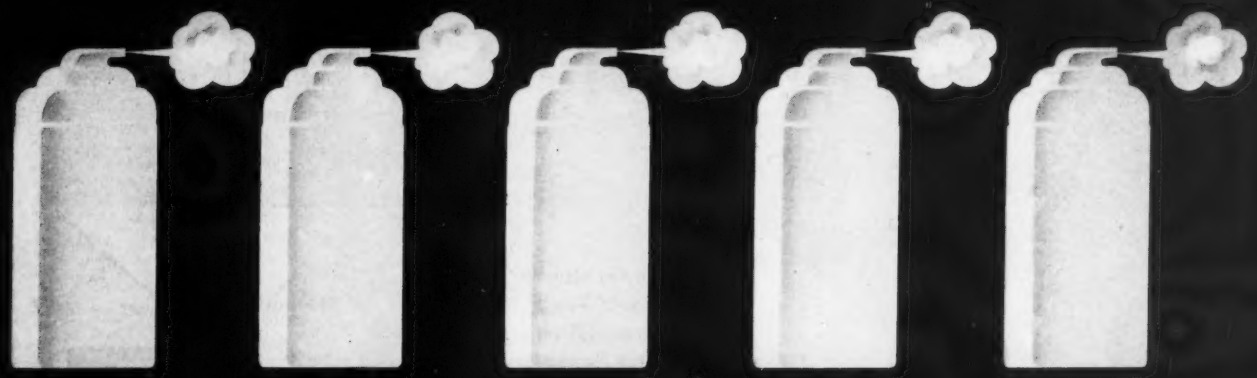
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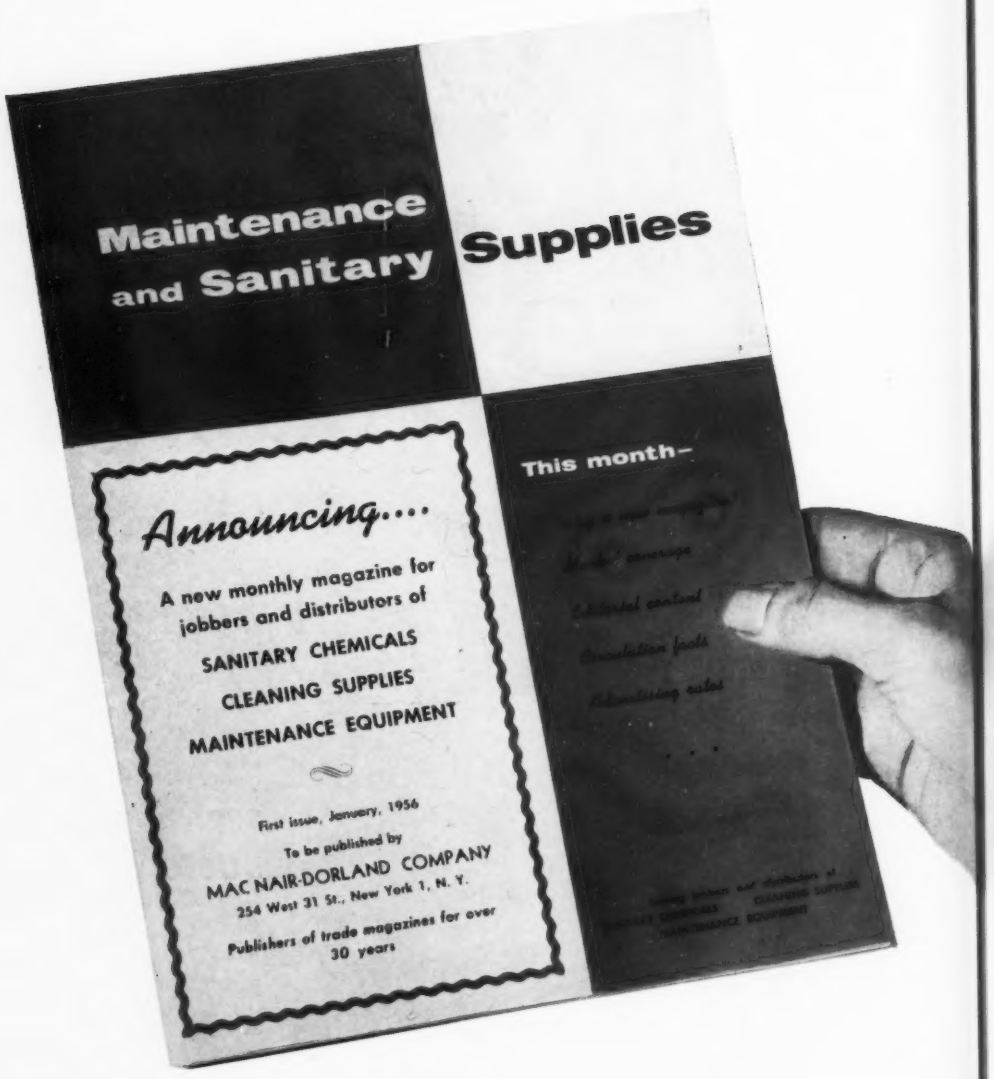
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CARDIS * 314	184-189	4-6	4-5	13-16	45-55	EMULSIFIABLE PETROLEUM WAX
CARDIS * 319	180-185	5-7	4-6	18-20	65-70	EMULSIFIABLE PETROLEUM WAX
CARDIS * 320	180-185	5-7	4-5	28-30	75-80	EMULSIFIABLE PETROLEUM WAX
CARDIS * 262	195-200	3-5	BROWN	14-17	40-45	SPECIALLY PROCESSED PETROLEUM WAX
FORTEX *	190-200	3-5	2½-3½	0.0	0.0	MICRO-CRYSTALLINE HARD AND PLASTIC
MEKON * B-20 A-20 Y-20	190-195 190-195 190-195	3-5 3-5 3-5	BROWN-BLACK AMBER-6 MAX. YELLOW-3-3½	0.0	0.0	MICRO-CRYSTALLINE HARD AND BRITTLE
POLYMEKON**	200-MIN.	0-3	YELLOW	0.0	0.0	SPECIALLY PROCESSED PETROLEUM WAX
WARCO * WAX 150-A	145-155 145-155	15-20 15-20	YELLOW 1-2 BROWN	0.0	0.0	MICRO-CRYSTALLINE PLASTIC
WARCO * WAX 170-A	170-175	10-15	YELLOW 1-2	0.0	0.0	MICRO-CRYSTALLINE PLASTIC
WARCO * WAX 180	180-185 180-185	4-7 4-7	WHITE BROWN	0.0	0.0	MICRO-CRYSTALLINE HARD AND BRITTLE
WARCOSINE *	150-155	15-20	WHITE	0.0	0.0	MICRO-CRYSTALLINE PLASTIC
PARAFFIN	136-138 ASTM		FULLY REFINED			CRYSTALLINE
CANE WAX 700	169-174	1.0-1.5	BROWN	25-30	70-90	VEGETABLE WAX
CANE WAX 500	171-176	3 MAX.	LIGHT BROWN	25-35	55-70	VEGETABLE WAX
CANE WAX 517-711	170-175	2 MAX.	BLACK	—	—	VEGETABLE WAX

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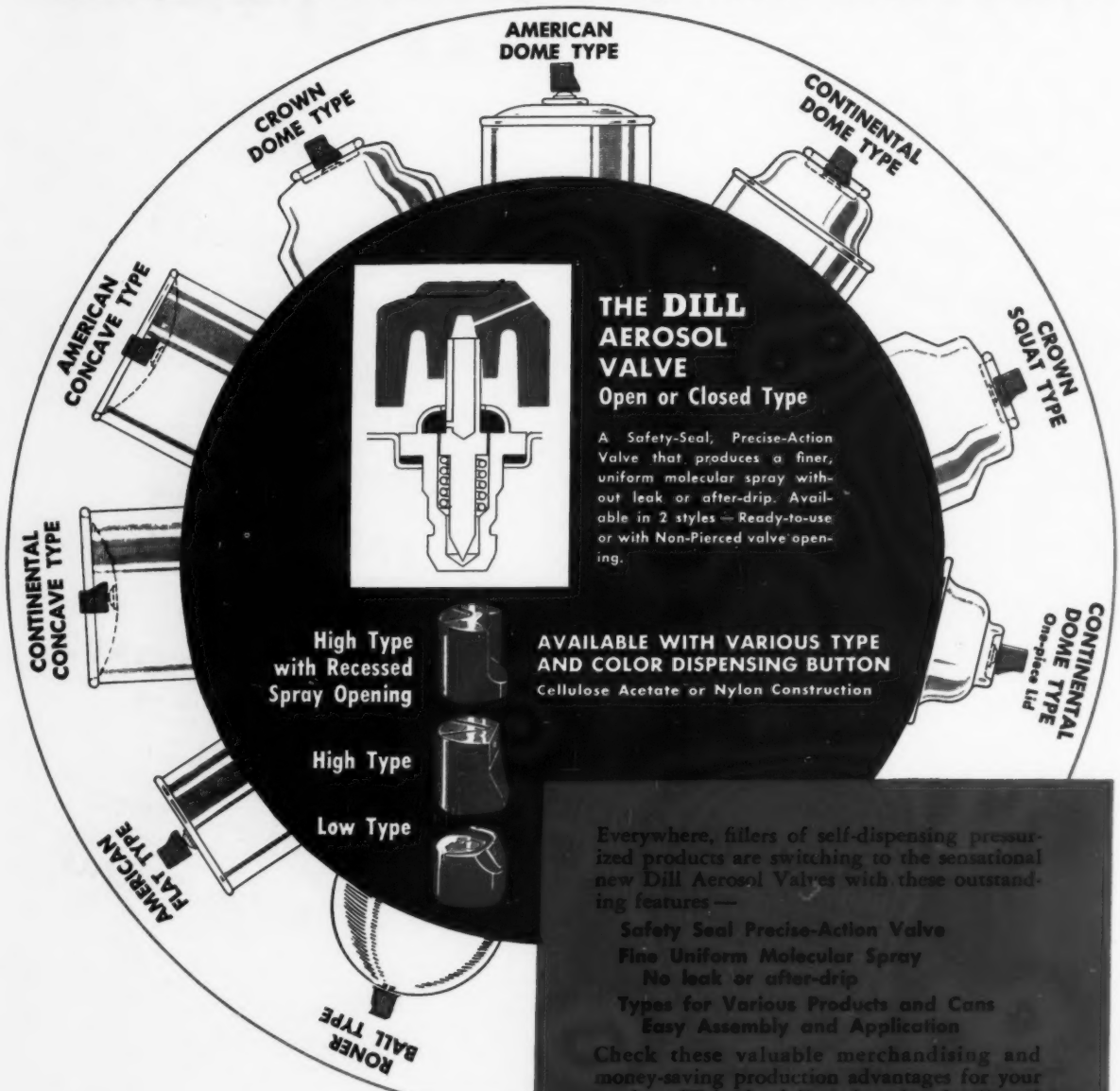
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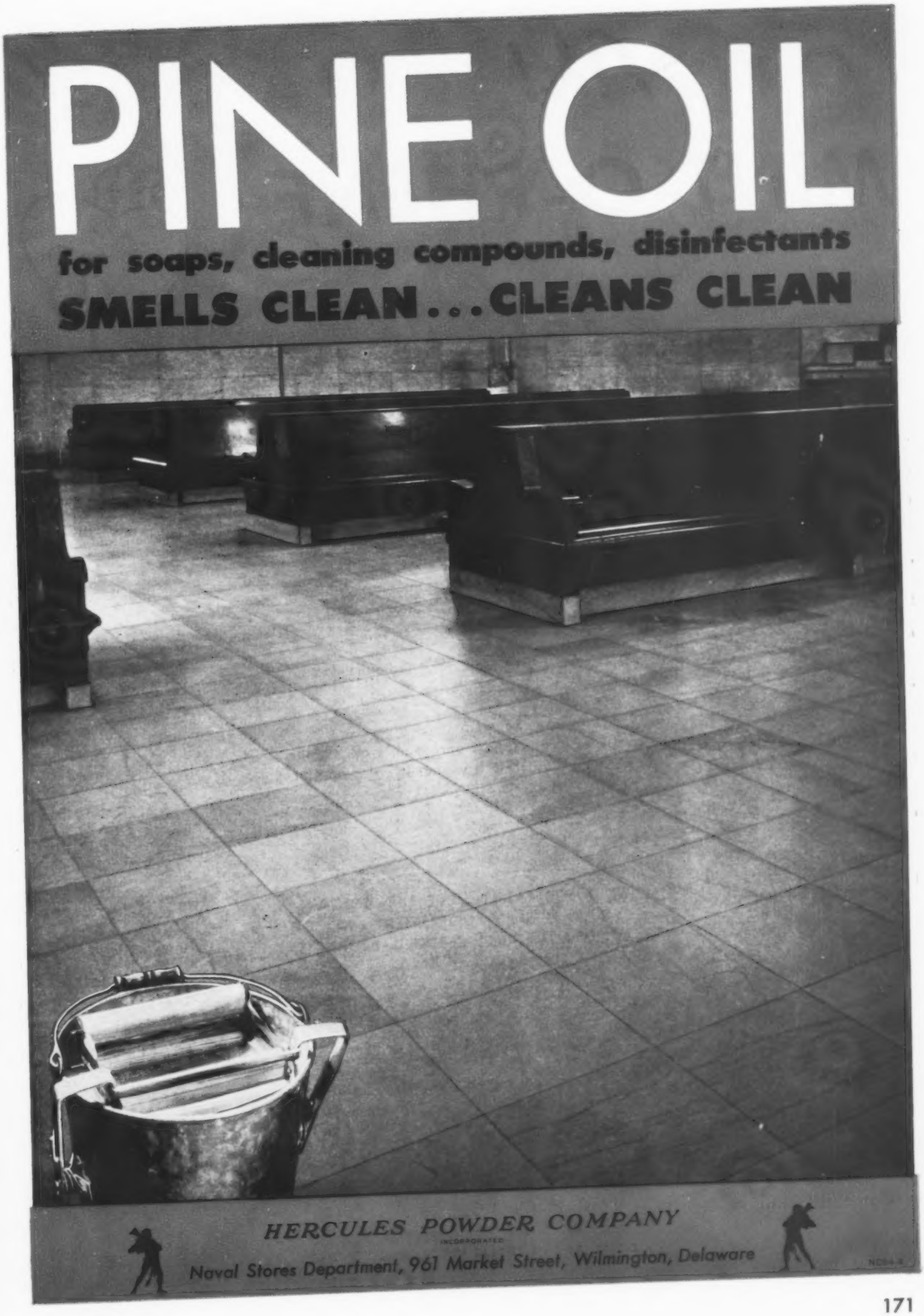
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CSMA Meeting in New York

TWO full days of formal individual and panel discussion of a wide range of topics pertaining to chemical specialties got under way Dec. 6 at the 42nd annual meeting of the Chemical Specialties Manufacturers Association at the Hotel Roosevelt, New York. The formal meeting, Dec. 6 and 7, was preceded by a meeting of the board of governors of the association Dec. 5. Meetings of various committees and subcommittees of the organization were also held on Dec. 5.

The first day of the formal meeting of CSMA opened with four simultaneous meetings of four of the six divisions of which the association is composed. These were followed by a group luncheon, which immediately preceded the first of two general sessions. The remainder of the day was to be given over to two other divisional meetings.

At the combined luncheon and general session the nominating committee made its report and new officers and directors were elected for the coming year. This was followed by the presentation of the Achievement Award to Jay C. Harris, director of the Dayton, O., application research department of Monsanto Chemical Co., St. Louis.



Melvin Fuld, president

The awarding of plaques to the winners of the 1955 Aerosol Package Contest also took place at the luncheon meeting.

In addition to simultaneous meetings of the Aerosol Division and the Soap, Detergents and Sanitary Chemical Products Division, four motion pictures were shown the afternoon of Dec. 6. The concluding event of the day is to be the company open house period from 6:00 to 9:00 p.m.

A general session, featuring reports of the officers of CSMA, takes place the morning of Dec. 7. Highlights include the address of CSMA president, Melvin Fuld of Fuld Brothers, Inc., Baltimore, whose topic is "Business Forecasting—Do It Yourself." Also scheduled is a talk on "The Reserve Forces Act of 1955 and the Problems of American Industry," by Gen. Edgar T. Conley, Jr., commanding general of the New York Military District. Kenneth Kramer, managing editor of *Business Week* magazine will discuss "What Kind of a Business Year 1955 Will Be?".

The luncheon speaker on Dec. 7 is Dr. Millard C. Faught of Faught Co., New York, whose topic is "People: You Should See the 1956 Models."

Simultaneous meetings of five divisions, two of them joint sessions, will conclude the formal discussion portion of the convention the afternoon of Dec. 7. The final activity will be the cocktail party and banquet and floor show the evening of Dec. 7.

During the 42nd annual meeting of CSMA all of the entries, including the winners, of the Aerosol Packaging Contest will be on display at the hotel. An added attraction is a display of oil paintings, including some portraits of members of the association, done by Michael Lemmermeyer, president of Aromatic Products, Inc., New York. The paintings will be hung in the aerosol display room.

E. G. Klarmann, vice-president



Peter C. Reilly, treasurer



H. W. Hamilton, secretary



Program for the 42nd Annual Meeting Chemical Specialties Manufacturers Assn., Hotel Roosevelt, New York Tuesday and Wednesday, Dec. 6 & 7

Tuesday Morning, Dec. 6

Disinfectant and Sanitizers Division
Grand Ball Room

Russel G. Puhle, presiding

9:00 A.M.

D-1 Address of Division Chairman, Russell G. Puhle, Tykor Products Division, Borden Co., New York.

D-2 Symposium: Detergents-Sanitizers. Moderator, Dr. E. G. Klarmann, Lehn & Fink Producs Corp., New York.

D-2A "Phenolic Based Detergent-Sanitizers," by C. R. Scott and Paul A. Wolf, Biochemical Research Div., Dow Chemical Co., Midland, Mich. Delivered by C. R. Scott.

D-2B "Iodophors as Detergent-Sanitizers," by Dr. Perry G. Bartlett, West Disinfecting Co., Long Island City, N.Y. Delivered by Albert Katz.

D-2C "Quaternary-Based Detergent-Sanitizers," by Harry Borowsky, Onyx Oil & Chemical Co., Jersey City, N.J.

D-2D "Chlorine Based Detergent Sanitizers," by John A. Quinn, Theobald Industries, Inc., Kearny, N.J.

D-2E "Labeling Aspects of Detergent-Sanitizers," by L. S. Stuart, in charge, Bacteriological Unit, Pesticide Regulation, U.S. Dept. of Agriculture, Washington, D.C.

Automotive Division—Vanderbilt Suite 3, 4 and 5

A. James Coulter, presiding

9:00 A.M.

AU-1 Address of Division Vice-Chairman, A. James Coulter, Gulf Oil Corp., Pittsburgh.

AU-2 "Determining Relative Polish Quality Using a Polish Comparator," by F. B. Hutto, Jr., and P. A. Martinson, Johns-Manville Products Corp., Celite Division, New York, N.Y. Delivered by F. B. Hutto, Jr.

AU-3 "The Epoxy Resin Mending Dopes for Automobile Bodies," by John G. Coffin, engineering department, Chevrolet division, General Motors Corp., Detroit.

AU-4 "Trends in Legislation Governing the Sales of Heavy Duty Brake Fluid," by Dr. Harold G. Lederer, R. M. Hollingshead Corp., Camden, N.J.

AU-5 "Government and Military Specifications," by Halkey K. Ross, Aberdeen Proving Ground, Aberdeen, Md.

AU-6 "How to Maintain Automotive Finishes," by Fred C. Kraatz, S. C. Johnson & Son, Inc., Racine, Wis.

Insecticide Division—Ball Room Foyer

George W. Fiero, presiding

9:00 A.M.

I-1 Address of the Division Chairman, by George W. Fiero, Esso Standard Oil Co., New York.

I-2 Report of the Scientific Committee, by G. S. Kido, chairman, Wisconsin Alumni Research Foundation, Madison.

I-3 Report of the Chemical Analysis Committee, by Mark L. Hill, Gulf Oil Corp., Philadelphia, chairman.

I-4 "Studies on Mode of Action of Pyrethrins," by C. W. Kearns, University of Illinois, Urbana.

I-5 "Eradication of Scabies in Sheep and Cattle," by Dr. J. L. Hourigan, Chief, Special Diseases Eradication Section, Agricultural Research Service, U.S. Department of Agriculture, Washington, D.C.

I-6 "Insects as Livestock Pests," by Arthur W. Lindquist, U. S. Department of Agriculture, Agricultural Research Service, Entomology & Research Branch, Plant Industry Station, Beltsville, Md.

I-7 "Current Status of Pyrethrum Supplies," by Russel B. Stoddard, Fairfield Chemical Division, Food Machinery & Chemical Corp., New York.

I-8 "State Laws and Regulations Affecting Sales and Distribution of Household Insecticides," by Albert B. Heagy, secretary-treasurer, Association of American Pest Control Officials, Inspection and Regulatory Service, University of Maryland, College Park.

Waxes and Floor Finishes Division—Small Ball Room

A. E. Budner, presiding

9:00 A.M.

W-1 Address of Division Chairman, by A. E. Budner, S. C. Johnson & Son, Inc., Racine, Wis.

W-2 "Compilation of Acid and Saponification Numbers According to Suppliers Method of Testing and ASTM Proposed Methods, Including Hydrocarbon Content by ASTM 1342 for Waxes," by Melvin Fuld, Fuld Brothers, Inc., Baltimore.

W-3 "Modern Trends in Floor Finish Formulation," by K. J. Wasserman, Dura Commodities Corp., New York.

W-4 "Motivational Research — What Makes People Buy," by Irving Gilman, Institute of Research for Mass Motivation, Croton-on-Hudson, N.Y.

W-5 "Waxes and Floor Finishes Survey for 1953-54," by A. E. Budner, S. C. Johnson & Son., Inc., Racine, Wis.

W-6 "A Comparison of the Behavior of Carnauba Wax and Gersthofen Wax 'KPS' in the Manufacture of Self-Polishing Emulsion," by Dr. Wolfgang Sapper, Farbwerke Hoechst, A. G., Lech-Chemie Gersthofen, Wax & Rosin Products, New York.

W-7 Report of the Scientific Committee, by H. J. Mellan, chairman, Durez Plastics and Chemicals Division, Hooker Electrochemical Co., Niagara Falls, N.Y.

Tuesday Afternoon, Dec. 6

12:30 P.M. Luncheon—Grand Ball Room.

General Session—Grand Ball Room

*G-1 Report of the Nominating Committee, by Leonard J. Oppenheimer, West Disinfecting Co., Long Island City, N.Y.

G-2 Presentation of Achievement Award to Jay C. Harris, Monsanto Chemical Co., by Melvin Fuld, CSMA president.

G-3 Presentation of Aerosol Package Contest Awards to Winners. Presiding: Frederick G. Lodes, Precision Valve Co., Yonkers, N.Y., chairman, Aerosol Package Contest.

Aerosol Division—Ball Room Foyer
H. R. Shepherd, presiding

2:15 P.M.

A-1 Address of Division Chairman, H. R. Shepherd, president, Aerosol Techniques, Inc., Bridgeport, Conn.

A-2 "Surface Coatings in Aerosols," by J. W. Bampton, Krylon, Inc., Norristown, Pa.

A-3 "Corrosion in Aerosol Systems," by Morris J. Root, technical director, G. Barr & Co., Chicago.

A-4 "Properties of Two Low Pressure Propellants," by John H. Beacher, General Chemical Division, Allied Chemical & Dye Corp., Edgewater, N.J.

A-5 "Food Aerosols," by W. E. Graham, manager of research, Crown Cork & Seal Co., Can Division, Philadelphia.

A-6 "Peracetic Acid in Aerosols"—A panel participated in by the following:

A6-1 "The Raw Materials," by Dr. Frank P. Greenspan, Becco Chemical Div., Food Machinery & Chemical Corp., Buffalo, N.Y.

A6-2 "The Packaging Aspects," by Montford A. Johnsen, Peterson Filling and Packaging Co., Danville, Ill.

A6-3 "The Product Aspects and Proposed Usage," by Dr. P. C. Trexler, associate research professor, Lobund Institute, University of Notre Dame, Notre Dame, Ind.

A-7 "Research Survey," by E. I. du Pont de Nemours & Co., Wilmington, Del.

A-8 "Report of Aerosol Scientific Committee, by W. E. Baulieu, Bridgeport Brass Co., Bridgeport, Conn., chairman.

A-9 Report of Commercial Standards Committee, by R. W. Svendsen, Chase Products Co., Maywood, Ill., chairman.

A-10 Report of Glass Aerosol Advisory Committee, by E. G. Young, Kinetic Chemicals Division, E. I. du Pont de Nemours & Co., Wilmington, Del.

Soap, Detergents and Sanitary Chemical Products Division—Small Ball Room
James M. Cloney, presiding

2:15 P.M.

S-1 Address of Division Chairman, by James M. Cloney, General Aniline & Film Corp., New York.

S-2 "The Use of Trichloroisocyanic Acid as a Solid Bleach and Sanitizing Agent," by Louis Fernandez, Monsanto Chemical Co., St. Louis.

S-3 "High Activity Alkylolamide Detergents," by H. L. Sanders, O. E. Libman and Y. D. Kardish, Ninol Laboratories, Inc., Chicago.

S-4 "Spotting Agents for Washable Fibres," by Martin E. Davis, Atlas Powder Co., Wilmington, Del.

S-5 "Characterization of Nonionic Detergents," by A. B. Steele and L. D. Berger, Jr., Carbide and Carbon Chemicals Co., New York.

S-6 Report of the Scientific Committee, by Jay C. Harris, Monsanto Chemical Co., Dayton, O., chairman.

Motion Pictures—Vanderbilt Suite 3, 4 and 5

M-1 "Dow—Texas"—A sound film in color showing the Texas plant of Dow Chemical Co., Midland, Mich.

M-2 "Case For Color"—How to use color in your business. A du Pont film.

M-3 "Dow—Midland" — A sound film in color showing the Midland plant of Dow Chemical Co.

M-4 "The du Pont Story"—A forty minute film in color and sound. The full length film was shown three years ago at an annual meeting. Repeated because of many requests to see it.

Tuesday Evening, Dec. 6,

Company Open House—
6:00 to 9:00 p.m.

Wednesday Morning, Dec. 7

General Session—Ball Room Foyer
Dr. E. G. Klarmann, presiding,
first vice-president, C.S.M.A.

10:00 A.M.

Address of the president, "Business Forecasting! Do It Yourself," by Melvin Fuld, president, Fuld Brothers, Inc., Baltimore.

G-5 Report of the secretary, by H. W. Hamilton.

G-6 Report of the treasurer, Peter C. Reilly, Reilly Tar and Chemical Corp., Indianapolis.

G-7 Report of the general counsel, by John D. Conner, Washington, D.C.

G-8 "The Reserve Forces Act of 1955 and the Problems of American Industry," by Brigadier General Edgar T. Conley, Jr., USA, Commanding General, New York Military District, Governor's Island, New York.

G-9 "What Kind of a Business Year Will 1956 Be?", by Kenneth Kramer, managing editor, **Business Week**, New York.

Wednesday Afternoon Dec. 7

12:30 P.M. Luncheon—Grand Ball Room.

H. E. Peterson, presiding
second vice-president, C.S.M.A.
"People: You Should See the 1956 Models," by Dr. Millard C. Faught, Faught Co., New York.

Joint Session: Aerosol and Insecticide Divisions—Ball Room Foyer
Charles E. Beach and Carlos Kampmeier, presiding

2:15 P.M.

A1-1 "The Cascade Impactor for Particle Size Analysis of Aerosols," by J. Mason Pilcher, Ralph I. Mitchell and Ralph E. Thomas, Battelle Memorial Institute, Columbia. Delivered by Mr. Pilcher.

A1-2 "Corrosion and Storage Stability of Aerosol Insecticides," by Dr. R. A. Fulton, U.S. Department of Agriculture, Agricultural Research Service, Entomological Research Branch, Beltsville, Md.

A1-3 "The Importance of Long Range Planning and How Importance of Markets Can Help," by Dana Hill and Margaret De Ville. Delivered by Dana Hill, Continental Can Co., New York.

A1-4 "Chlordane-Quaternary Ammonium Mixtures in Low Pressure Aerosols—Insecticidal-Deodorant Applications," by Leo Trademan, technical service department, Velsicol Chemical Corp., Chicago.

Disinfectant and Sanitizers Division
A. G. Bowers, presiding

2:15 P.M.

D-8 "Experimenal Quaternary 3104—A New Germicide," by W. E. Botwright, A. B. Law, W. D. Niederhauser, and J. L. Rainey, Rohm & Haas Co., Philadelphia. Delivered by W. E. Botwright.

D-9 "Fungicidal Activity of Experimental Antibiotics and Fluorinated Chemicals," by Alton E. Prince and Sam Bakanauskas, Biochemical Section, Protective Process Branch, Materials Laboratory, Wright Air Development Center, Wright-Patterson Air Force Base, Dayton, O.

D-10 "The Evaluation of Chemical Germicides for Sanitation of Milk and Food Equipment," by Dr. Keith H. Lewis, Chief, Milk and Food Research, Robert A. Taft Sanitary Engineering Center, Cincinnati.

D-11 "Chemical Decontamination in the Army Biological Warfare Research and Development Laboratories," by Dr. A. G. Wedlum, Safety Director, Headquarters, Camp Detrick, Frederick, Md.

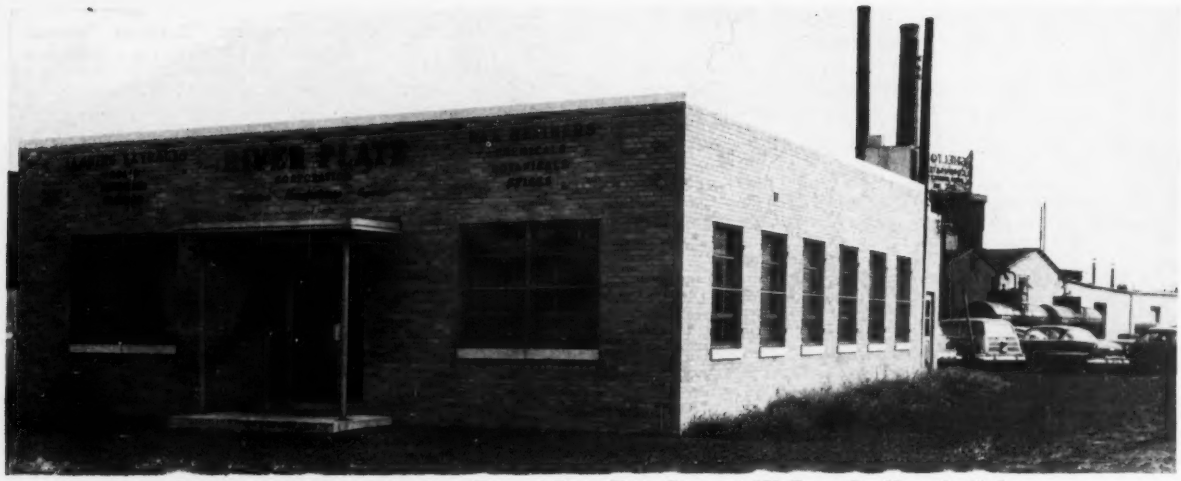
Joint Session: Soap, Detergent and Sanitary Chemical Products and Waxes and Floor Finishes Division—Grand Ball Room
J. C. Harris and C. S. Kimball, presiding

2:15 P.M.

SW-1 "Symposium on Cleaning and Maintaining Floor Coverings." Moderator, C. S. Kimball, Foster D. Snell, Inc., New York.

a. "Maintenance of Asphalt Tile," by Paul J.

(Turn to Page 255)



Entrance to refinery and sales offices of River Plate Corp., at 573 Ferry St., Newark, N. J.

New River Plate Corp. Wax

THE completion of a fully integrated wax refining plant, capable of long continuous operation at peak production was announced recently by River Plate Corp., New York. The plant, located adjacent to the firm's tanning extract plant, at 573 Ferry St., Newark, N. J., is solid evidence of the company's belief in the expanding end uses of waxes and the industry's need for additional refining facilities. River Plate Corp. has long been identified with the chemical field through extensive operations in importing and processing tanning materials. With the expansion of the company's activities through its wax division in recent years, the completion of the refining plant puts River Plate in a position to serve the industry's diversified requirements. The installation is unique in the respect that comprehensive planning permitted the engineering and set-up of a completely integrated plant, capably adequate for long-continuing schedules of operation at peak scale. The over-all integration of the processing units, together with the abundance of latest scientific controls, from manual to electronic devices, are among the highlights of the new River Plate refinery.

Designs were worked out for

Top: Freight loading side of wax refinery and adjoining tanning extract plant. View of River Plate's general offices in new building in Newark, N. J.





Left to right, top to bottom

Electronically-controlled heating units.

Crude wax is charged into combined crushing and loading equipment.

Temperatures are constantly checked on loading platform. Automatic controls and thermometers are at each side.

Wax melting kettles.

Steam-jacketed filter press equipped with hydraulic closing mechanism.

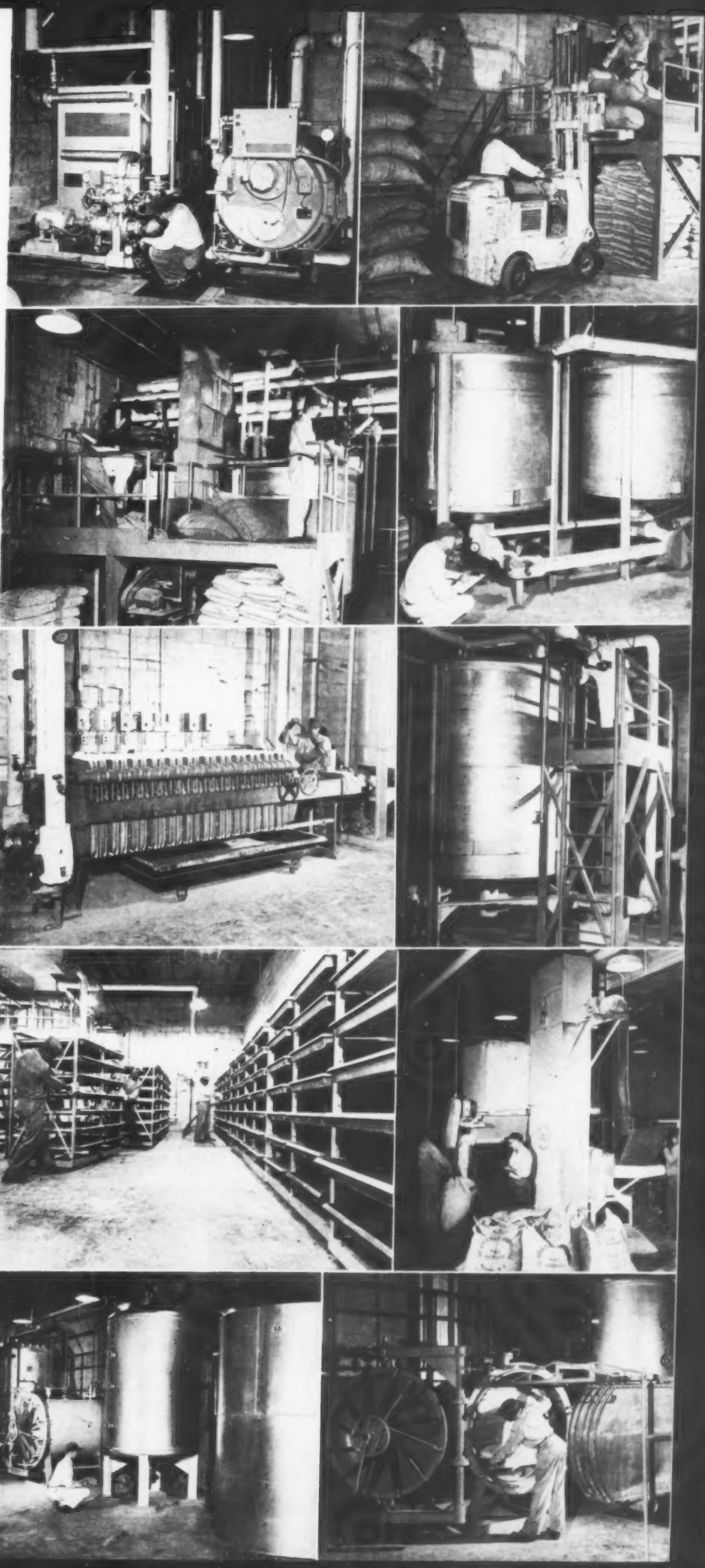
All batches from the wax blending kettle are sampled for laboratory checks before release.

The battery of portable cooling trays.

A registered weigher checks the loading from crushing unit.

Over-all view of solvent extraction units.

Completely enclosed filter press specially designed for the solvent extraction system.



Refinery

By W. W. Lewers, Ph.D.

Consulting Chemist and
Chemical Engineer,
Brooklyn

the custom fabrication of equipment capable of delivering heat in such a manner that the temperature of the melting operation could be controlled within very narrow lines. To this end, an exhaustive study was made of various types of recently designed heating equipment, and as a result, unique units were built to order, utilizing a non-inflammable organic liquid as a heat transfer unit. This can be operated within a wide range of closely-controlled temperature levels, thereby making it feasible to liquify high melting waxes of the type not readily melted by the average steam boiler.

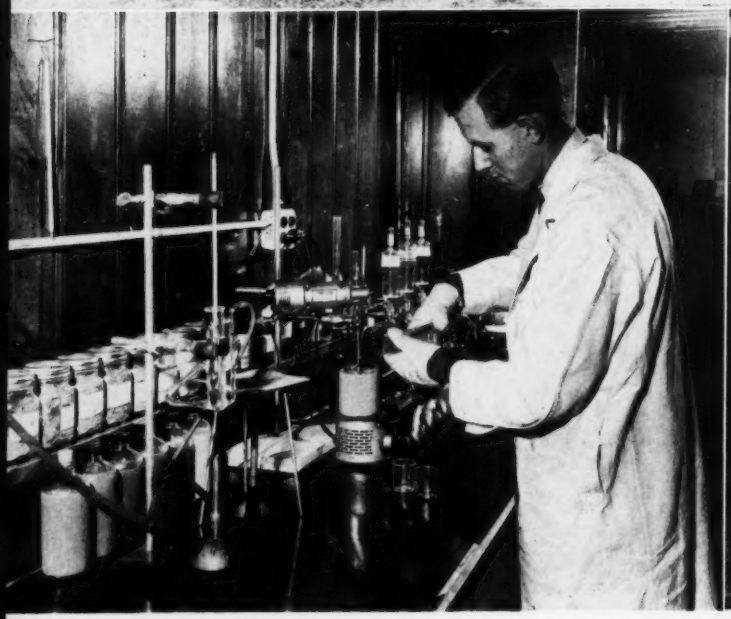
Ultra-Modern Boiler

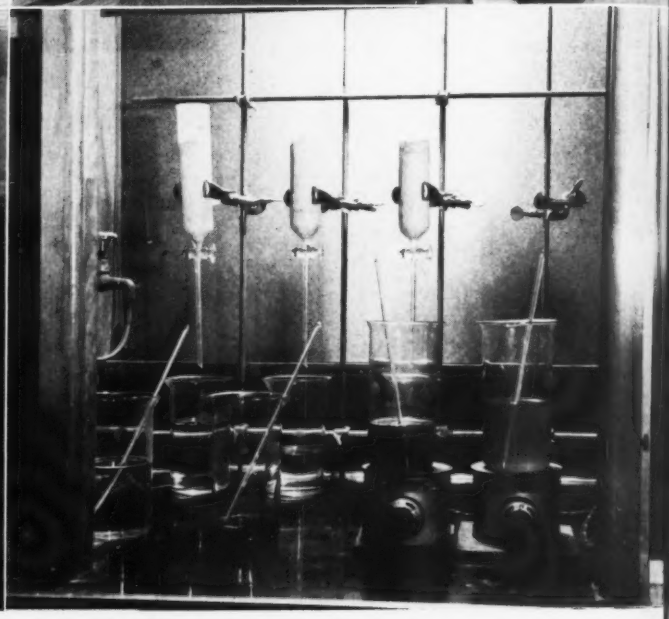
IN addition, a steam boiler of ultra modern design with electronic controls was installed as auxiliary heating equipment. Through this, the user is assured of wax of uniform quality and consistency, an attribute unattainable if the wax becomes overheated. The automatic precision control of the heating units precludes that possibility.

Representative samples of all lots of crude wax purchased for refining are subjected to the fol-









Top left: One section of spacious warehouse in which various types of refined wax are stored in preparation for shipment.

Lower left: The emulsification test as applied to refined wax.

Top right: Corner of research laboratory.

Bottom right: Hydrocarbon tests are carried out under carefully controlled conditions.

lowing laboratory determinations: melting point, flash point, dirt and water percentage, acid value, saponification value and hydrocarbon content.

The crude wax is loaded into a specially designed crusher which discharges into a bucket elevator connected directly with the melting tanks. To take full advantage of the heating system it was necessary to design tanks specifically for the purpose. To this end, the metals employed had to be limited to those which neither discolor molten wax nor react in any way with it. The melting tanks are equipped with mechancial agitation for complete admixture of the molten wax with filter aids and decolorizing clays.

The large steam-heated plate and frame filter press was built to specification to insure uninterrupted flow. After filtration the wax is pumped into huge, mechanically agitated blending tanks of sufficient size to insure complete batch uniformity of the fully refined product.

From the blending tanks the wax is run either into cooling pans or flaking equipment. Since a large part of the production is in lump form, it was found expedient to provide movable racks for the cooling pans. This feature contributes to rapid pan loading and cooling. After cooling, the slabs are transferred to a crusher connected to a bucket elevator which discharges into the finished product container. Weights are checked by a registered weigher. Flaking is carried out by use of a highly-polished, internally cooled revolving drum.

The scientifically engineered, solvent-extraction system was designed (1) to provide for the maximum recovery of wax contained in the press cake: (2) to yield a solvent-free wax such as is obtained

in primary refining operations.

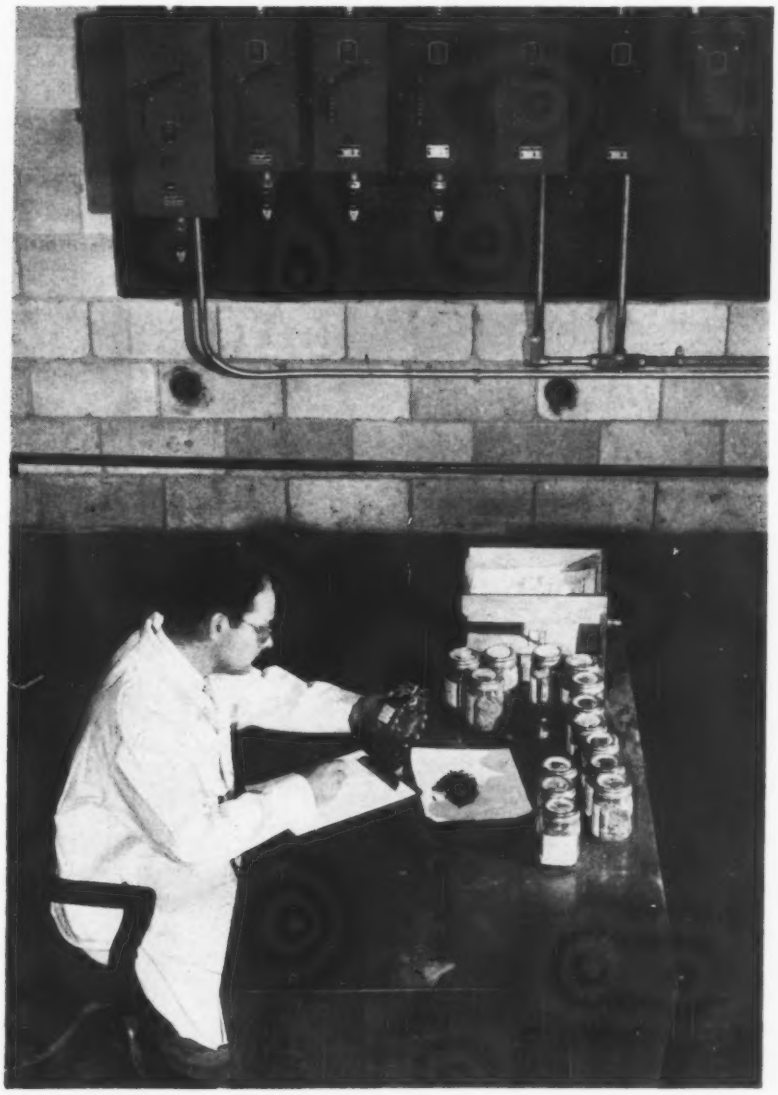
River Plate Corp. carries on a business dating back to 1913, conducted under the name of New York Quebracho Extract Co., and later Tannin Corp., which companies dealt solely in importing and manufacturing of tanning materials for the leather industry. Since 1948, when River Plate Corp. acquired the business of its predecessors, the company expanded and diversified its interest so that it now is one of the largest importers of crude waxes, chemicals and tanning materials, as well as being an important manufacturer of refined waxes and tanning chemicals.

Frank P. Gage, vice-president and general manager of River Plate Corp., personally directs the activities of the wax division. Dr. W. W. Lewers is the company's consultant on waxes; and Joseph Cunha is the assistant manager of the division. Fred L. Treslar is in charge of production. Laboratory personnel includes Dennis A. Blackford and Thomas C. Blair, Jr.

The company's executive offices are located on the 36th floor of the Chrysler Building in New York and its wax refinery, tanning extract plant and laboratories are situated in Newark, N. J.

Tannin Corp. of Massachusetts, organized in 1923, (a wholly-owned subsidiary of River Plate Corp.) manufacturers tanning materials for the New England leather industry.

Record samples are taken of all wax batches.



—★—

Takes Over Geigy Plant

Plans for Diamond Black Leaf Co., Cleveland, O., to take over operation of the Des Moines, Ia., pesticide processing plant of Geigy Agricultural Chemicals Division of Geigy Chemical Corp., New York, on Dec. 1, were announced recently. The announcement was made jointly by Loren P. Scoville, president of Diamond Black Leaf and Dr. George R. Ferguson, president of Geigy's Agricultural Chemicals Division.

Built in the fall of 1954 at a cost of $500,000 and put into operation early this year, the Des Moines plant produces insecticides and weed killers for distribution in the states of Ohio, Michigan, Indiana, Illinois, Kentucky, Wisconsin, Minnesota, Iowa, Missouri, North and South Dakota, Nebraska, Wyoming, Montana and Colorado.

Dr. Ferguson stated that this move is being made primarily in the interest of intensifying Geigy's activities in the marketing of DDT and methoxychlor and the further development and production of several outstanding new pesticides.

Diamond Black Leaf Co. was formed in February of this year. The new firm, in which Diamond Alkali Co., Cleveland, holds a major interest, absorbed the operations of Black Leaf Products Division of Virginia-Carolina Chemical Corp., Richmond. It manufactures the "Black Leaf" line of insecticides, herbicides and fungicides. The latest addition gives the company its fifth formulating facility.

Emil C. Gerdes, midwestern manager for Geigy Agricultural Chemicals, is joining the Diamond Black Leaf organization in a similar capacity. Formerly a distributor of agricultural and other chemicals at Burlington, Ia., for a number of years, he has been associated with Geigy in his present position since 1948.



Announcement...

effective November 1, 1955 Cornelius Products Company Inc. and General Wax Refining Co., Inc. merged with the Wax Division of G. S. Ziegler & Company.

Products... our usual high standard — Carnauba, Ouricury, Candelilla, Beeswax, Ozokerite, Ceresine, Bleached Montan, Synthetics, Blends, etc.

Personnel... No change. A complete staff of expert technical men ably qualified through long and successful enterprise in the field to serve and assist you under the management of Hans Freund, George Freund and Edward Koos in those problems involving waxes and allied materials.

Plant... A modern, completely equipped unit located at New Market, New Jersey, which offers large production facilities.

Purpose... Cornelius Products and General Wax have a long and broad experience in this field and together with the large modern wax refining and compounding facilities of Ziegler, it is our intention to provide our many friends with the utmost in quality, service and new products.

All existing purchase and sales contracts will be assumed and fulfilled by

CORNELIUS WAX REFINING
DIVISION OF
G. S. ZIEGLER & COMPANY
99 CHURCH STREET, NEW YORK 7, N. Y.
Tel.: WOrth 4-8383



To Fellow Members . . .

The combined organization extends very best wishes to the industry on the occasion of the 42nd annual meeting of the Chemical Specialties Manufacturers Association at the Hotel Roosevelt, December 5th - 7th, 1955.

We offer the chemical manufacturer the following waxes:

. . . . Carnauba Wax, Yellow Grades.

. . . . Our own Pure Refined Grades of Carnauba Wax to meet the most exacting specifications.

. . . . Our Technical Refined Grades of Carnauba Wax which we guarantee for best results in pastes and emulsions.

. . . . Custom Blends as per your instructions.

For detailed information, please contact our main office or the nearest of our following branches and representatives:

UNITED STATES

BOSTON	GRANT CHEMICAL CO.
CHICAGO	CORNELIUS WAX REFINING
LOS ANGELES	CHEMICAL ADDITIVES CO.
PHILADELPHIA	O. L. WEST
SAN FRANCISCO	S. L. ABBOT CO.

CANADA

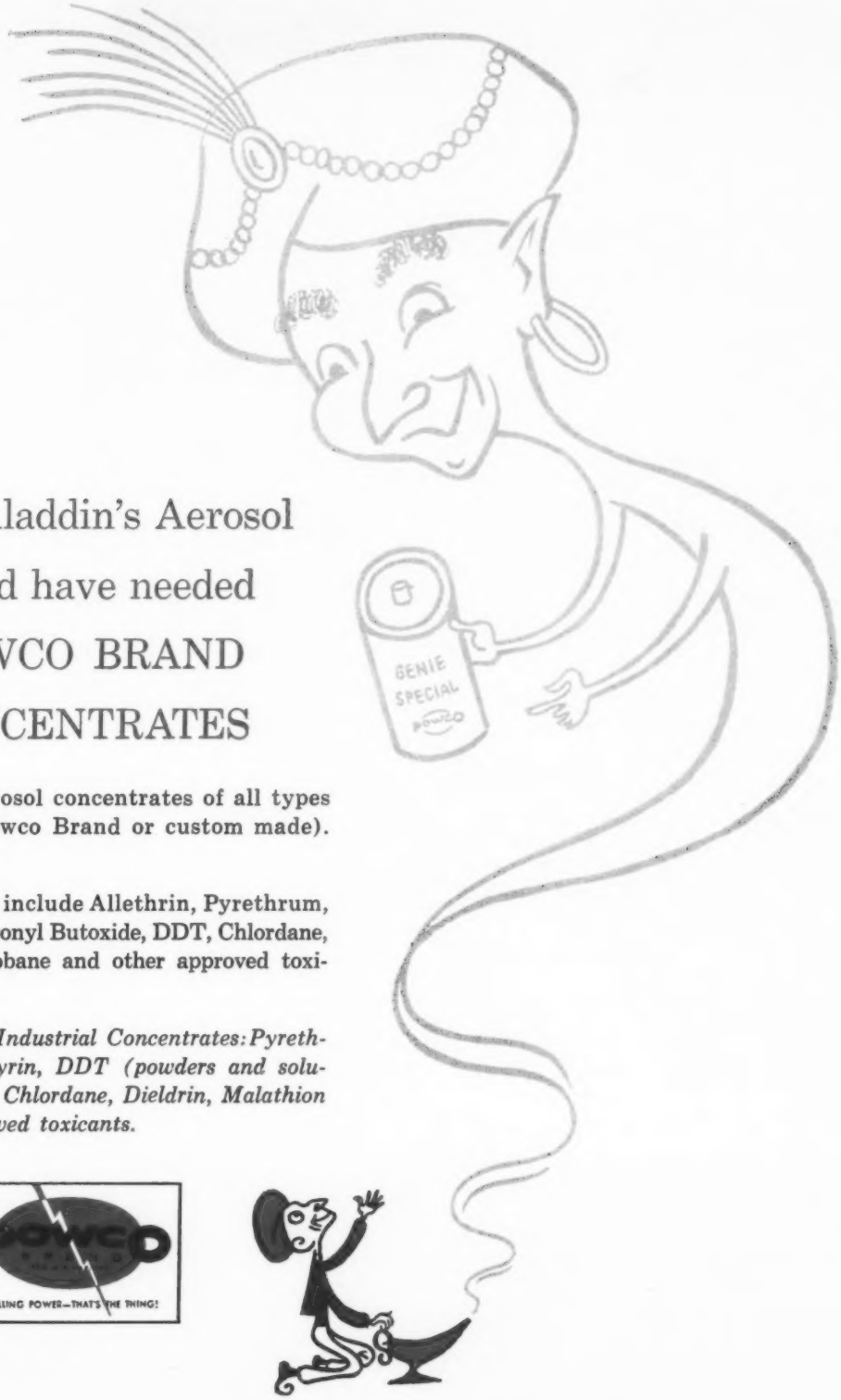
MONTREAL	ALLIED BASIC CHEMICAL CO., LTD.
TORONTO	ALLIED BASIC CHEMICAL CO., LTD.

Since our combined personnel is intact, all of us are looking forward to meeting and greeting all of you at the convention.

George R Freund

GEORGE R. FREUND
Gen. Mgr., Wax Division
Cornelius Wax Refining


SOLUBILITY TESTS
CORROSION CHECKS
Your Perfumed AEROSOL Requires
. . . all this and more before it is ready for market. Shampoos, shave creams, hand lotions, colognes, Xmas snow, insecticides, room sprays, personal deodorants, industrial products . . . whatever the item exhaustive pre-production checks are essential to its long-term success. In the D&O Aerosol Testing Laboratory all of this work is done for the manufacturer readying a new aerosol product for the market. Each test is conducted by an experienced aerosol technician and highly skilled perfumers check odor stability every step of the way. This service is available to you...
Consult D&O
Our 157th Year of Service
PRESSURE FILLING
SHELF-LIFE TESTING IN CORROSION BOX
FINISHED PRODUCT ODOR EVALUATION
COLD FILLING
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ESSENTIAL OILS • AROMATIC CHEMICALS • PERFUME BASES • FLAVOR BASES • DRY SOLUBLE SEASONINGS



even Aladdin's Aerosol
would have needed
POWCO BRAND
CONCENTRATES

- **Complete aerosol concentrates of all types (standard Powco Brand or custom made). Ready-to-fill.**
- **Formulations include Allethrin, Pyrethrum, Sesamin, Piperonyl Butoxide, DDT, Chlordane, Perthane, Strobane and other approved toxicants.**

Household and Industrial Concentrates: Pyrethrum Extract, Pyrin, DDT (powders and solutions), Lindane, Chlordane, Dieldrin, Malathion and other approved toxicants.

POWCO
KILLING POWER—THAT'S THE THING!

John Powell & Company
Division of Olin Mathieson Chemical Corporation
One Park Ave., New York 16, N. Y.
Philadelphia, Pittsburgh, Chicago, Denver,
Fort Worth, Omaha, Atlanta



Best of Show and winner of the insecticides category: "Cross Country Rose and Floral Spray" of Sears, Roebuck & Co., Chicago. Judges based their decision on the product's simple, clean-cut label design, featuring a full color reproduction of a rose in full bloom.

Aerosol Package Contest Winners

Aerosol Package Contest winners, facing page, left to right, top to bottom:

Artificial Snow: "Christmas," product of Airosol Co., Neodesha, Kans.

Industrial Products: "Rust Veto Spray," product of E. F. Houghton Co., Philadelphia.

Glass and Plastic Containers: "Ambush" spray cologne, product of Dana Perfumes, Inc., Chicago.

Miscellaneous Household Products: "Fire Chief" fire extinguishing spray, product of Marlowe Chemical Co., New York.

Shave Products: "Palmolive Rapid Shave Lather Cream," product of Colgate-Palmolive Co., Jersey City, N. J.

Hair Preparations: "Blue Grass Hair Spray," product of Elizabeth Arden Sales Corp., New York.

Miscellaneous Personal Products: "Xpose Suntan Cream," product of Walgreen Drug Stores, Chicago.

Room Deodorants: "Jetco Spring Blossom" spray, product of Jewel Tea Co., Barrington, Ill.

Insecticides: "Cross Country Rose and Floral Spray," a product of Sears, Roebuck & Co., Chicago.

Paint Products: "Dupli-Color Spray Enamel," a product of Dupli-Color Products Co., Chicago.





Aerosol package contest judges, l. to r.: Hoyt Howard of Hoyt Howard, Inc., New York; Max Brown, vice-president in charge of sales, Fels & Co., Philadelphia; Michael Meisler, cosmetic and toiletries buyer, Saks Fifth Ave., New York, and Robert P. Long, editor and publisher of **Gravuro** magazine, Garden City, N.Y.



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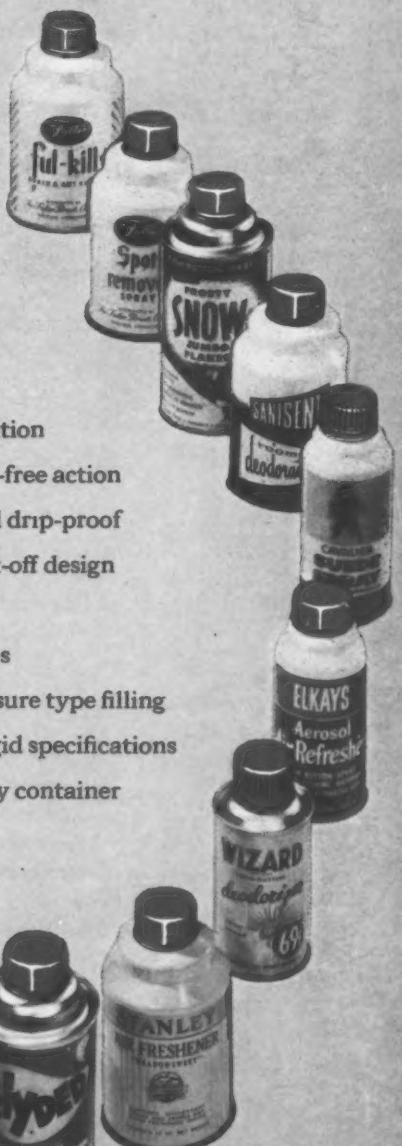
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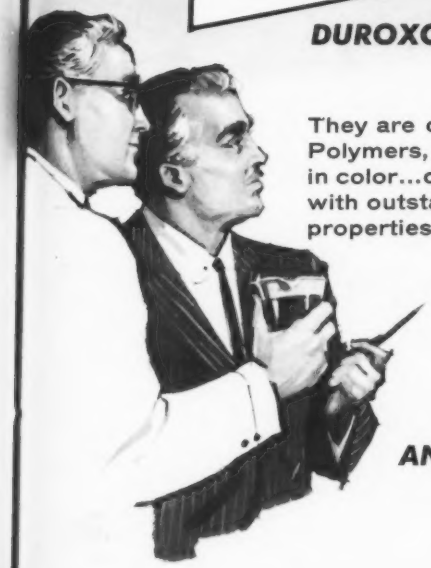
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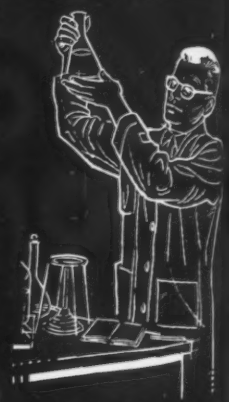
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Iodine Sanitizing Solutions

By Louis Gershenfeld and Bernard Witlin*
Philadelphia College of Pharmacy and Science

THIS presentation concerns itself with a study of the bactericidal efficiency of commercially available iodophors and other preparations of free iodine recommended for use in sanitization procedures.

Iodine as an antiseptic and disinfectant, as a bactericide, fungicide, protozoacide, as a general biocidal agent and as a sanitizing agent has been the subject of recent presentations(1-3). Its activity against tubercle bacilli(4) and as a virucide (5) has been considered. Solutions of free iodine have been recommended for sanitization of food utensils(6) and iodine's usefulness in the sanitization of water has been reported(1,7,8,9).

Other iodine-liberating preparations have become available in the recent past. Various synthetic detergents or surfactants have been employed as solubilizing agents or iodine carriers. Among the iodine-based sanitizers marketed to date, certain nonionic detergents have been found most efficient and the most stable iodine carriers. These so-called iodophors (*iodo* = iodine and *phor*=carrier), which are available at present, differ in respect to the amount of iodine which is present in each, their reactivity (amount of iodine liberated), their detergency, pH, stability and other characteristics. Formulations of phosphoric acid buffered iodine-iodide solutions and of acid buffered mixtures of nonionic surfactants with iodide and iodate have been marketed or are here presented as effective sanitizing solutions(10-12).

*Presented at 55th General Meeting, Society American Bacteriologists, May 9, 1955, New York, N. Y.

Experimental

Test Bacteria: *Micrococcus pyogenes* var. *aureus* F. D. A. 209, A. T. C. C. No. 6538 and Hopkins strain 26 of *Salmonella typhosa* (Zopf) Weldin, F. D. A., A. T. C. C. No. 6539 displaying a resistance to phenol as recommended by "The Association of Official Agricultural Chemists Phenol Coefficient Method-Official" were used(13).

Temperature: The tests were performed at 20°C. and also at 37°C. All transplants were incubated at 37°C. for forty-eight hours.

Samples Tested: Iodine Tincture (U. S. P. XIV) and Iodine Solution (N. F. IX), both containing 2 percent free iodine were employed. Available marketed iodophor preparations were tested. The two showing the greatest bactericidal activity were employed throughout all these experiments. Twelve acid buffered iodide-iodine preparations were formulated and prepared at Battelle Memorial Institute. Two of those screened which revealed maximum sanitizing activity were employed throughout the experiments. Sodium hypochlorite solution was employed as the source of available chlorine. All samples tested were assayed for free iodine and for free chlorine contents. The concentrations used throughout the tests contained identical quantities of free halogen.

A—Iodine Tincture U.S.P. (2 per cent free iodine)
B—Iodine Solution N. F. (2 per cent free iodine)
C—Iodophor (1.75 percent free iodine)
D—Iodophor (1.25 percent free iodine)
E—Battelle Sanitizing Solution (Phosphoric acid buffered iodine-iodide solution, 1.94 per cent free iodine)
F—Battelle Sanitizing Solution (Phosphoric acid buffered iodine-iodide solution, 1.64 per cent free iodine)
G — Sodium Hypochlorite Solution (5.76 percent available chlorine) diluted with M/15 phosphate buffer (pH 8.0)
H — Sodium Hypochlorite Solution (5.76 per cent available chlorine) diluted with distilled water

The designations shown in box in center column refer to the samples tested.

Culture Media: Formulas as given in "The Association of Official Agricultural Chemists Phenol Coefficient Method—Official" (13).

Technique: Recently a capacity test for germicidal action was devised to determine the "maximum number of incrementally added microorganisms plus rigidly defined extraneous matter in solution or suspension, sterilizable by a given quantity of germicide"(14). In this test varied volumes of the test bacteria were added to 5 ml. of a dilution of the germicide to be tested. One minute later, a 4 mm. standard(13) loopful of the bacteria-germicide mixture was transplanted to a sterile tube containing 10 ml. broth. Thirty seconds later, another increment of the bacteria was added and a minute later another 4 mm. loopful was transplanted. This was repeated until ten

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increments had been added and ten loopfuls of the mixture transplanted. The transplants were then incubated at 37°C. for 48 hours and the absence or presence of growth was noted macroscopically.

In our evaluation of suitable germicides or sanitizers to be used especially for hard surfaces after first cleaning the latter, we employed modifications as to the volume of inoculum and germicide. We have also included the various modifications introduced by Stuart and his associates of the U. S. Department of Agriculture, Bacteriological Unit, Pesticide Regulation Section. These include the use of established quantities (0.2 ml.) of bacterial culture to either 5 ml.(15) or 10 ml.(16) amounts of germicide dilution. A phosphate buffer (pH 8.0) for chlorine dilutions instead of distilled water which was originally employed is used by them. The most recently introduced modification by the latter group will appear in "The Manual of Methods of The A.O.A.C."—1955, 8th ed. (16) as "Available Chlorine Germicidal Equivalent Concentration (-)—First Action." In this latest modification the procedure varies only in the fact that 0.05 ml. of the test bacterial culture is added to 10 ml. of the respective dilutions of the germicide or sanitizer.

Experiment I,

Five ml. portions of the various concentrations of iodine and

Table I—Capacity Test
5 ml. Germicide + 0.2 ml. Inoculum

Bacteria	Temp. C°	p.p.m.	A	B	C	D	E	F	G	H
S. TYPHOSA	20°	2	0	0	0	0	0	0	0	0
		4	0	0	0	0	0	0	0	0
		6	0	0	1	1	1	1	0	0
		8	0	0	1	1	1	1	0	0
		10	0	0	1	1	1	1	0	0
		20	0	0	1	1	1	1	0	0
		25	1	1	1	1	1	1	0	0
		50	1	1	2	2	2	2	0	0
		100	2	2	5	3	4	5	2	0
		200	3	3	6	4	5	6	3	0*
	37°	2	0	0	0	0	0	0	0	0
		4	0	0	0	0	0	0	0	0
		6	0	0	1	1	1	1	0	0
		8	0	0	1	1	1	1	0	0
		10	0	0	1	1	1	1	0	0
		20	0	0	1	1	1	1	0	0
		25	1	1	1	1	1	1	0	0
		50	1	1	2	2	2	2	2	0
		100	2	2	5	5	5	5	3	0
		200	4	4	6	6	6	6	6	0
M. PYOGENES Var. AUREUS	20°	2	0	0	0	0	0	0	0	0
		4	0	0	0	0	0	0	0	0
		6	0	0	0	1	1	1	0	0
		8	0	0	0	1	1	1	0	0
		10	0	0	0	1	1	1	0	0
		20	0	0	0	1	1	1	0	0
		25	1	1	1	1	1	1	0	0
		50	1	1	2	2	2	2	0	0
		100	2	2	5	3	3	5	1	0*
		200	3	3	6	4	4	6	2	0
	37°	2	0	0	0	0	0	0	0	0
		4	0	0	0	0	0	0	0	0
		6	0	0	1	1	1	1	0	0
		8	0	0	1	1	1	1	0	0
		10	0	0	1	1	1	1	0	0
		20	0	0	1	1	1	1	0	0
		25	1	1	1	1	1	1	0	0
		50	1	1	2	2	2	2	0	0
		100	2	1	4	4	4	4	2	0
		200	3	3	6	6	6	6	2	0

Number Designates Highest Increment Killing Test Bacteria.
*Required 575 p.p.m. for killing 1st increment.

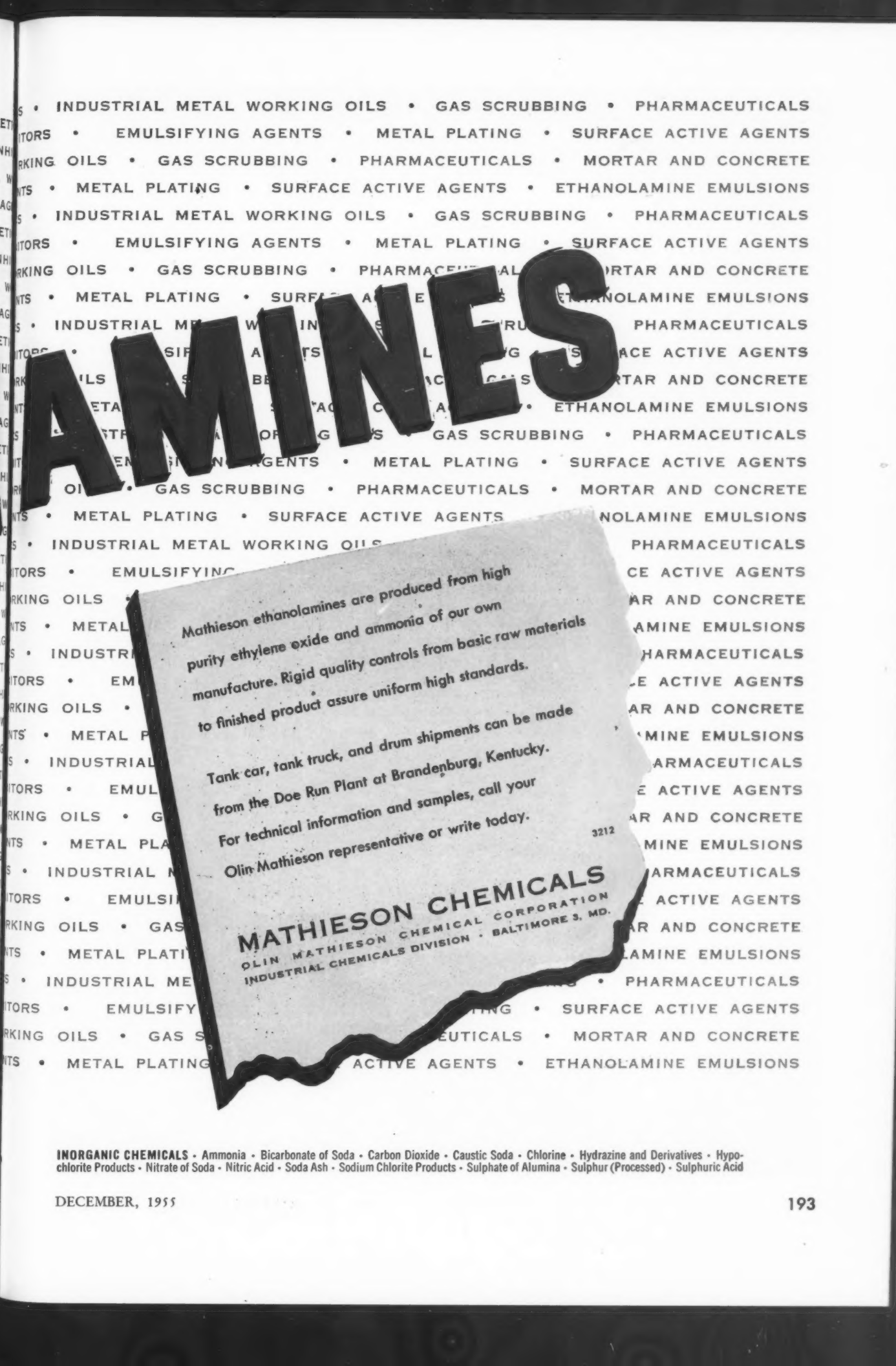
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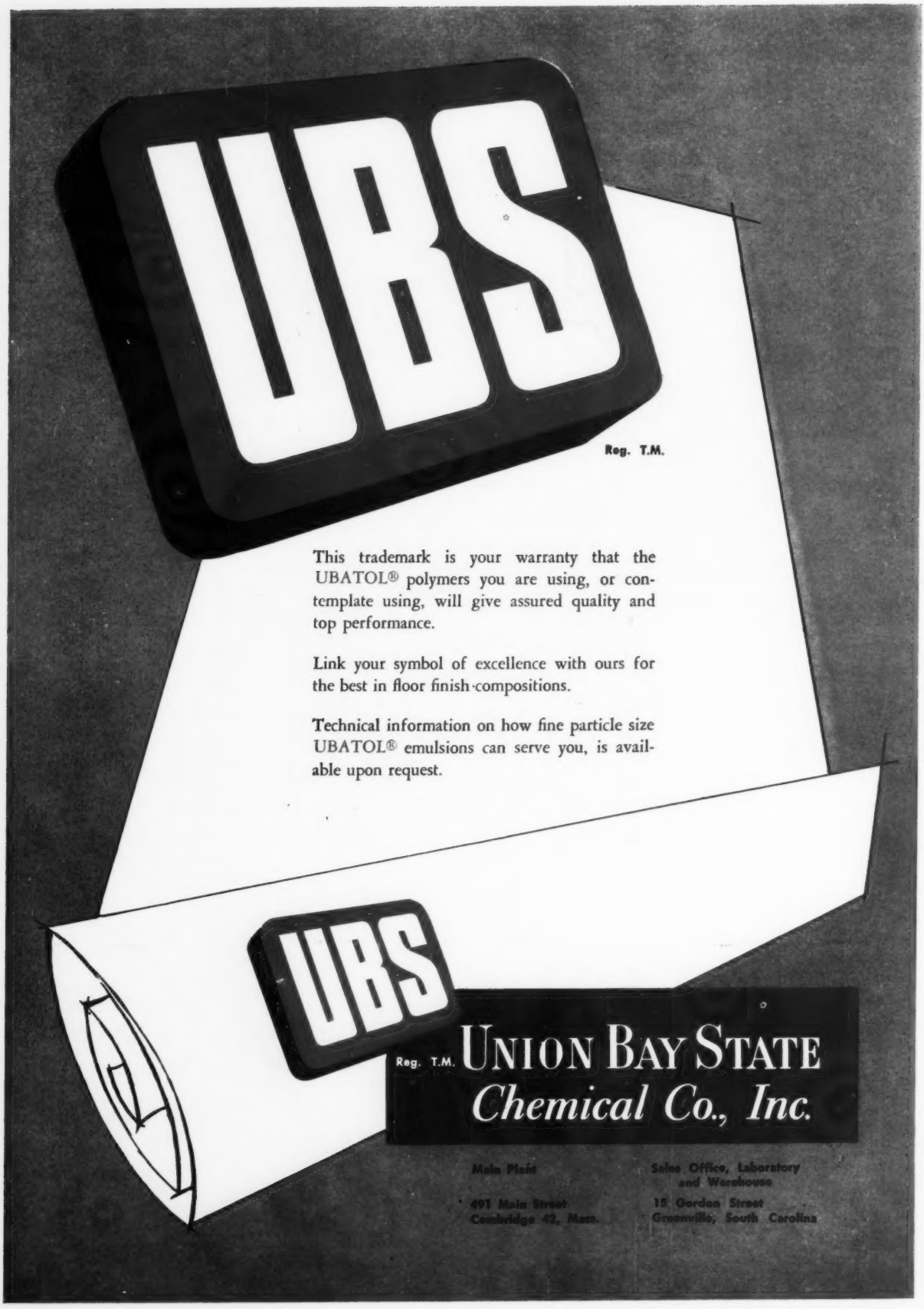
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iodophor sanitizing solution (2, 4, 6, 8, 10, 20, 25, 50, 100, and 200 ppm. free-iodine) were employed. Varying volumes of the test bacteria were added. In preliminary tests the test bacteria were varied from 1 ml. to 0.1 ml. of culture as follows: 1 ml. ($4x10^8$), 0.5 ml. ($2x10^8$), 0.4 ml. ($1.6x10^8$), 0.3 ml. ($1.2x10^8$), 0.2 ml. ($0.8x10^8$), and 0.1 ml. ($0.2x10^8$). Chlorine controls prepared with sodium hypochlorite diluted with M/15 phosphate buffer (pH 8.0) and also diluted with distilled water were run in an identical manner.

It was observed that the most consistent and reproducible results were obtained with the 0.2 ml. ($0.8x10^8$) inoculum of test bacteria (a 1:25 ratio).

The results obtained with 5 ml. of the concentrations of iodine and 0.2 ml. (a 1 to 25 ratio) are recorded in Table I. It is of interest to note that it required 25 p.p.m. of free iodine compounds A and B to kill the test bacteria in the first increment at both 20°C. and 37°C, whereas the iodophors C and D and the Battelle santizing solutions E and F required only 6 p.p.m. of free iodine to obtain similar results.

Also of interest is the fact that in this modified technique available chlorine concentrations diluted with distilled water required 575 p.p.m. to kill the test bacteria in the first increment. Sodium hypochlorite solution diluted with M/15 KH_2PO_4-K_2HPO_4 at pH 8.0 required 100 p.p.m. available chlorine to kill the test bacteria in the initial increments (at 20° C.). The original Cantor-Shelanski Capacity Test(14) did not employ a phosphate buffer as the diluent for the chlorine. This was introduced by Stuart, who indicates that "The purpose of employing a buffered chlorine control solution is to provide as a standard of reference a constant available chlorine minimum standard"(16). Nevertheless, it should be noted that in practice chlorine dilutions are prepared with water as the diluent.

Experiment 2

The iodine and iodophor sanitizing solutions were diluted to identical concentrations as was done in Experiment 1. Two-tenths ml. ($0.8x10^8$) increments of cultures of the test bacteria at the designated ten time intervals were added separately to each of five ml. volumes of the various concentrations of sanitizing solutions.

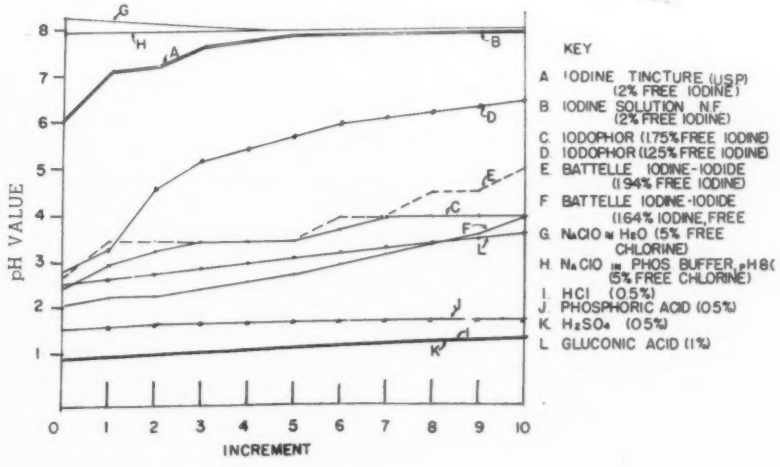
Sanitizing solutions C,D,E, and F were found to be more effective than equivalent concentrations of free iodine-containing solutions (A and B). To determine why a solution containing identical amounts of free iodine exhibited better bactericidal activity, the following pH determinations were conducted. These were made on each solution, on each test culture, and on each increment and mixture thereof, as in the above capacity tests for germicidal action. In the case of solutions A and B (100 p.p.m. free iodine) the pH rapidly changed to the alkaline side (above pH 7.0) after even the second addition of broth cultures of the test bacteria (second increment). The range of solution C (100 p.p.m. free iodine) was from pH 2.5 to 4.0, solution D (100 p.p.m. free iodine) from pH 2.85 to 6.5, solution E (100 p.p.m. free iodine) from pH 2.8 to 6.7 and solution F (100 p.p.m. free iodine) from pH 2.15 to 4.0 throughout the test and upon the addition of ten 0.2 ml. increments of 22 to 26 hour old cultures of the test bacteria. The above pH findings were the same at both 20°C. and 37°C.

Sanitizing solutions C, D, E, and F contained phosphoric acid in their formulations. A solution of 0.5 per cent phosphoric acid was prepared in distilled water and tested by the above capacity technique. The phosphoric acid solution did not possess bactericidal efficiency during the period of the test. However, it did maintain excellent buffering qualities (pH 1.65 to 1.70) against sterile F. D. A. broth and against ten 0.2 ml. increments of the 22 to 26 hour cultures of the test bacteria in F. D. A. broth.

It appeared of interest to note whether the pH buffering was due to a phosphoric acid-protein system (phosphorylation) or whether other acids would or would not be just as effective. One-half per cent solutions each of hydrochloric acid and sulfuric acid, and a solution of one per cent gluconic acid were prepared with sterile distilled water. The three solutions did not exhibit bactericidal efficiency (either at 20°C. or at 37°C.). The pH of both the mineral acid—bac-

Table II

pH STUDIES OF 5 ML QUANTITIES OF IODINE SANITIZING SOLUTIONS (100 PPM) DURING ADDITION OF 0.2 ML. M. PYOGENES var. AUREUS





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Table III—Capacity Test.
10 ml. Germicide + 0.2 ml. Inoculum

Bacteria	Temp. C°	p.p.m.	A	B	C	D	E	F	G	H
S. TYPHOSA	20°	2	0	0	1	1	1	1	0	0
		4	0	0	1	1	1	1	0	0
		6	0	0	1	1	1	1	0	0
		8	0	0	1	1	1	1	0	0
		10	0	0	2	2	2	2	0	0
		20	1	1	3	3	3	3	0	0
		25	1	1	4	4	4	4	0	0
		50	2	2	5	5	5	5	1	0
		100	4	4	10	10	10	10	3	1
		200	7	7	10	10	10	10	4	3
	37°	2	0	0	1	1	1	1	0	0
		4	0	0	1	1	1	1	0	0
		6	0	0	1	1	1	1	0	0
		8	0	0	1	1	1	1	0	0
		10	1	1	2	2	2	2	0	0
		20	1	1	3	3	3	3	0	0
		25	1	1	4	4	4	4	0	0
		50	2	2	5	5	5	5	2	0
		100	3	3	10	10	10	10	3	1
		200	7	7	10	10	10	10	6	3
M. PYOGENES Var. AUREUS	20°	2	0	0	1	1	1	1	0	0
		4	0	0	1	1	1	1	0	0
		6	0	0	1	1	1	1	0	0
		8	0	0	1	1	1	1	0	0
		10	0	0	1	1	1	1	0	0
		20	1	1	1	1	1	1	0	0
		25	1	1	2	2	2	2	0	0
		50	2	2	5	5	5	3	1	0
		100	3	3	10	10	10	6	3	1
		200	5	5	10	10	10	10	4	3
	37°	2	1	1	1	1	1	1	0	0
		4	1	1	1	1	1	1	0	0
		6	1	1	1	1	1	1	0	0
		8	1	1	1	1	1	1	0	0
		10	1	1	1	1	1	1	0	0
		20	1	1	1	1	1	1	0	0
		25	2	2	2	2	2	2	0	0
		50	2	2	5	5	5	6	1	0
		100	3	3	10	10	10	10	3	1
		200	5	5	10	10	10	10	4	3

Number Designates Highest Increment Killing Test Bacteria.

teria mixtures remained between 1.0 and 1.45 throughout the entire testing period at both temperatures. Gluconic acid maintained a pH range of 2.7 to 3.6 throughout the entire test. (See Table II). A control test was conducted with 100 p.p.m. available chlorine prepared from sodium hypochlorite.

Experiment 3

The following experiment was also performed to determine whether the bactericidal effect of the sanitizing solutions was due to the free iodine content, or the pH values thereof, or a combination of both.

Iodine sanitizing solutions (pH 2.8) were prepared with sterile distilled water in 50 p.p.m. free iodine concentrations. Upon dilution with equal quantities of sterile 0.01 normal $Na_2S_2O_3$ (pH 7.6) which neutralized the free iodine, the pH of the mixture changed to 5.3. The test bacteria were added in ten 0.2 ml. increments and 4 mm. transplants were made at the designated time intervals. Growth appeared in all subcultures after incubation.

The results of the preceeding tests (Exp. 1, 2 and 3) revealed that solutions of free iodine for use as sanitizing agents are more effective if kept on the acid side throughout their use. The acidity of use dilutions need not be as low as pH 1.0. However, an acid pH should prevail throughout the pe-

(*Turn to Page 217*)

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Insect Control on Feathers —with EQ 53

By Hamilton Laudani, P. H. Clark[1], H. L. Williams, and W. E. Dale[2]

Stored-Product Insects Laboratory,
Savannah, Georgia[3]

FEATHERS, like wool and other animal hairs, are subject to insect damage. In the past this problem has been a rather minor one. Most of the trouble has occurred in feather processing plants and in furniture and bedding manufacturing plants where feathers were used for furniture stuffing, mattresses, and pillows. Occasionally serious infestations occur in homes having furniture or bedding stuffed with feathers. One instance was observed where infestation in European feather mattresses was so heavy that the excrement, which sifted through the bottom of the mattress in 24 hours, was sufficient to form a very noticeable coating on the floor under the bed.

With the advent of stockpiling of feathers for military and civilian use, the problem of protecting feathers in storage against insect damage has become a serious one. Naphthalene and paradichlorobenzene crystals and flakes have been used for this purpose, but have been found unsatisfactory because the frequent handling of the feathers to replenish the large quantities of these volatile materials needed to give adequate protection is quite costly.

[1] Now with Entomological Research Branch, A. R. S., U. S. D. A.
[2] Now with the Communicable Disease Center, U. S. Public Health Service, Savannah, Ga.
[3] This is one of the field stations of the Agricultural Marketing Service, Marketing Research Division, Biological Sciences Branch, Stored-Product Insects Section, U. S. Department of Agriculture.

The efficacy of very light deposits of DDT to protect woolens against insect damage had already been established at the time the work with feathers was started (Laudani and Marzke, 1949). Since feathers have a chemical structure similar to wool, it was decided to investigate the use of this insecticide for treating feathers. The approach used in this investigation was: (1) To determine the extent of damage done to feathers by the larvae of the black carpet beetle, *Attagenus piceus* (Oliv.), under controlled laboratory conditions; (2) to determine the protection rendered by various levels of DDT deposits over a period of several years; (3) to conduct laboratory studies on methods of application; and (4) to conduct mill application to determine the feasibility of the method developed in the laboratory.

Susceptibility of Feathers to Damage by Black Carpet Beetle Larvae

PROCEDURE: A slightly modified version of the CSMA textile-resistant test method (Anon. 1952) was used to determine the susceptibility to insect damage of duck, goose, and chicken feathers and downs. This same method was later used for evaluating the degree of protection rendered by the various treatments. Briefly, the method consisted of selecting a known weight of perfect feathers or down and exposing them in open dishes to 10 larvae of the black carpet beetle for 28 days. The test insects were three to five months old and weighed 4.5 to 6.5 mg., each. Four replications were used. During the exposure period, the test dishes were kept in a room having a constant temperature of 80° F. ± 2°, and a relative humidity of 60 percent ± five percent.

Results: The results were evaluated according to (1) mortality, (2) visual damage, and (3) excrement weight. The visual damage was expressed as none, very light, moderate, and heavy. Because of the physical makeup of feathers and particularly of downs, it was very difficult at times to estimate the visual damage. Because of this difficulty, the conclusions were based mainly on the excrement weights obtained. The weights are expressed in milligrams per larva and any treatment was considered satisfactory if less than 0.30 mg. of excrement was obtained at the end of the 28-day exposure period. This evaluation was more critical than the standard set by the CSMA method which sets the allowable excrement weight for satisfactory resistance at five mg. per larva.

The susceptibility of various kinds of untreated feathers and downs to damage by larvae of black carpet beetle is shown in table 1.

The data show that duck, goose, and chicken feathers and downs are very susceptible to insect damage.

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Table 1.—Susceptibility of various kinds and grades of feathers to damage by black carpet beetle larvae. Exposure period was 28 days.

Kind	Grade	Visual damage	Excrement wt. Mg. per larva
Duck	Mixed feathers	Heavy	3.14
Duck	Down	Heavy	3.68
Goose	Mixed feathers	Heavy	2.56
Goose	Down	Heavy	3.43
Chicken	Crushed feathers	Heavy	1.98
—	Mixed down	Heavy	2.06

Laboratory Evaluation of the Protection Rendered by Various DDT Deposit Levels

PROCEDURE: The efficacy of DDT in protecting feathers against insect damage was determined by treating the feathers with various amounts of DDT and then exposing the treated feathers to black carpet beetle larvae. The level of deposit was determined chemically by using the total benzene-soluble chlorine method (Anon. 1950). The biological tests were conducted in the same manner as described above. The first series of tests was run three months after treatment and the feathers were retested periodically for a period of 4½ years.

Results: The results of the biological tests are shown in table 2. All of the excrement weights obtained with the treated feathers were below 0.30 mg., whereas those of the untreated feathers were 1.12 to 1.92 mg. Aging appeared to have little or no effect on the treatments for the results obtained during the 4½ years were about the same. The conclusions drawn from these tests were that DDT residues of 0.19 percent by weight or above would give excellent protection against insect damage for as long as 4½ years after treatment.

Studies on the Method and Rate of Application

PROCEDURE: Once the effectiveness and long lasting qualities of DDT residues to protect feathers against insect damage had been established, a suitable means of applying the insecticide had to be found. It was also necessary to determine the rate of application needed to obtain the desired level of deposit. Because of the similarity in chemical structure of feathers and wool, the same approach was used as in the studies on the treatment of washable woolens with dilute nonionic emulsions of DDT (Laudani 1953). This consisted of running two series of emulsion bath treatments using EQ-53[4] and determining (1) if feathers have a selective pickup for DDT when treated in dilute nonionic emulsions of DDT, and (2) if so, the rate of application which will give approximately a 0.50 ± 0.25 percent deposit of DDT by weight on feathers.

The first series consisted of 10 treatments of mixed chicken feathers in aqueous emulsions containing 0.05 to 2.0 percent of DDT. Approximately 30 grams of feathers were placed in Osnaburg cloth bags and immersed in the insecticide emulsion bath for five minutes during which time the feathers were kept in constant agitation. The temperature of the bath was 88° F.

[4] Formulation developed by the Savannah, Georgia, laboratory of the U. S. Department of Agriculture specifically for mothproofing. EQ-53 contains 25 percent of DDT, 10 percent of a nonionic emulsifier of the polyhydric alcohol or alcohol ether type, and 65 percent of aromatic hydrocarbon solvent.

Table 2.—Results of biological tests in which DDT-treated feathers were exposed to larvae of the black carpet beetle at various intervals after treatment.

Type of feathers	DDT deposit	Age of deposit	Frass weight per larva
	% by wt.	Months	Mg.
Goose feathers	0.19	6	0.13
		12	0.17
		24	0.15
		36	0.11
		48	0.11
		54	0.10
Goose feathers	0.36	6	0.12
		12	0.14
		24	0.11
		36	0.19
		48	0.19
		54	0.17
Duck down	0.42	6	0.09
		12	0.15
		24	0.09
		36	0.15
		48	0.21
		54	0.16
Feather down	0.61	6	0.13
		12	0.17
		24	0.15
		36	0.11
		48	0.11
		54	0.10
Feather down mixture Untreated		6	1.34
		12	1.46
		24	1.12
		36	1.19
		48	1.77
		54	1.92

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Table 3.—Influence of selected factors on the residue of DDT on feathers resulting from immersion in dilute nonionic emulsion baths. Treatment made in open vessel and agitated normally.

Treatment No.	Weight of feathers		Volume of bath	DDT in bath		DDT exhausted from bath	DDT on feathers (by weight)	
	Dry	Wet		Weight	Concentration		Expected	Actual
	Grams	Grams	Milliliters	Grams	Percent	Percent	Percent	Percent
A								
1	30.9	51.4	5000	100	2.0	0.57	1.30	1.84
2	30.8	50.6	5000	75	1.5	0.86	0.97	2.09
3	30.7	50.9	5000	50	1.0	1.11	0.66	1.81
4	30.9	49.4	5000	25	0.5	1.58	0.30	1.28
5	30.6	50.3	5000	10	0.2	4.68	0.13	1.53
B								
1	30.0	50.0	300	1.20	0.4	26.5	0.27	1.06
2	30.0	49.3	300	0.90	0.3	31.3	0.19	0.94
3	30.0	49.7	300	0.60	0.2	42.0	0.13	0.84
4	30.0	48.0	300	0.30	0.1	57.0	0.06	0.57
5	30.0	49.4	300	0.15	0.05	76.0	0.03	0.38

The feathers were then run through an extractor operating at 1,000 r.p.m. for one minute, after which they were dried at 135° F.

In the second series, the feathers in 20-gram lots were treated in a Launder-Ometer[5] for five minutes at a bath temperature of 100° F. The volume of the bath in all treatments was 300 milliliters. After treatment, the feathers were hand-squeezed to remove the excess liquid and then dried at 135° F. in a hot-air circulating drying oven.

Samples from each of the treated lots were analyzed quantitatively by the total benzene-soluble chlorine method (Anon. 1950) to determine the actual DDT deposit on the feathers. The theoretical expected deposit was based on the amount of DDT present in the emulsion retained by the feathers after they had been hand-squeezed. The treatments made were the following:

a. Feathers treated directly in emulsion baths containing 0.110, 0.165, and 0.220 percent of DDT.

b. Feathers washed in a 0.2-percent neutral soap solution[6] and then treated in a rinse containing 0.055, 0.110, and 0.165 percent DDT.

c. Feathers washed in a 0.2-percent neutral soap solution, rinsed for five minutes in a clear rinse, and then treated in a second rinse containing 0.055, 0.110, 0.165, and 0.220 percent of DDT.

Results: The data obtained from the treatments described are shown in tables 3 and 4. The results showed that feathers treated in dilute DDT nonionic emulsions picked up considerably more DDT than was expected from the amount of emulsion retained by the feathers. Furthermore, the difference between the expected and the actual deposit was progressively greater as the amount of DDT in the bath was decreased. Approximately the same amount of DDT was deposited on the feathers regardless of the type of treatment used, and regardless of whether the feathers were treated directly or after a wash or rinse.

As previously indicated, a deposit of 0.5 ± 0.25 percent DDT by weight is desired on the feathers for protection against insect damage. This level of deposit was obtained when 0.005 to 0.01 gram of DDT per gram of feathers were used. In terms of EQ-53, this is the equivalent of 10.1 to 20.2 ml., per pound of feathers, respectively, or an average of 15.15 ml. It is interesting to note that this is exactly the amount of EQ-53 found necessary to obtain the same level of DDT deposit on wool.

Studies on Mill Application

A series of treatments was made to determine whether the method and rate of application worked out in the laboratory for mothproofing feathers would work out satisfactorily when applied under practical mill conditions.

Procedure: The processing of raw feathers consists of washing, rinsing, extracting the excess liquid, drying, and assorting the feathers. The method and equipment used for processing feathers in the plant where the tests were conducted are described below.

The washing was done in a large vat which was an oval-shaped continuous trough holding approximately 1,400 gallons of water. Located in the vat were two paddle wheels which kept the contents flowing around the vat. The vat was filled with water and then one gallon of muriatic acid and seven pounds of neutral detergent were added. The pH of the wash water was 2.6. After the water, acid, and detergent were thoroughly mixed,

[5] Standard laboratory machine for washing and dry cleaning tests adopted by the American Association of Textile Chemists and Colorists, and the Chemical Specialties Manufacturers Association.

[6] Fed. Spec. P-S-566.

the raw feathers were dumped into the vat. One bale of feathers weighing approximately 180 to 200 pounds was processed at one time. The wash period lasted 15 minutes, during which time the feathers were kept in constant agitation by the paddle wheels in the vat. At the end of the 15-minute period, simultaneous draining of the wash water from the bottom of the tank and the introduction of clean water at the top of the vat were started.

The change of water in the vat continued for 20 minutes and this process served as the rinse. Normally, the feathers were drained out of the vat at the end of this process and placed in the extractor. In all of the treatments with EQ-53, the emulsion concentrate was added to the rinse water at the end of the 20-minute period and the agitation continued for an additional five minutes. During the time the insecticide was present, the same water was kept in the vat; the outlet and inlet water pipes were shut off.

At the end of the five-minute treatment rinse, the water was drained out of the vat and the feathers transferred to a rotary extractor where the excess moisture was removed. The extraction time was six to seven minutes. The moisture content of the feathers after extraction was 40 percent.

After the extraction process, the feathers were placed in a huge dryer for approximately seven minutes. The temperature in the dryer was in the vicinity of 240° F. After drying, the feathers were blown through ducts into two assorting machines.

By means of air currents the feathers were sorted out according to size and weight into four grades. The grades and the symbols commonly used are as follows:

Large feathers	(A)
Medium-size feathers	(B)
Small feathers	(CBC)
Down	(DYD)

In all of the treatments, EQ-53 was added to the rinse water at the end of the regular rinsing period and the feathers agitated in the emulsion bath for an additional five minutes. The insecticide was poured into the vat slowly in order to get as good a distribution as possible throughout the bath. The feathers were then processed in the usual way.

Two kinds of feathers, Formosa goose and Long Island duck, were treated with EQ-53 at dosages ranging from 1/3 to 3/4 fluid ounce per pound of feathers.

Samples of the treated feathers were taken of each lot after the extraction period (damp dry), after drying (unassorted), and after sorting (grades A, B, CBC, and DYD). Since the treated feathers were blown into two assorting machines after they were dried, samples for analyses were taken from both machines. The samples were analyzed by the AOAC total benzene-soluble chlorine method to determine the amount of DDT present. Duplicate analyses were run on all samples.

Results: The process used

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Table 4.—Influence of selected factors on the residue of DDT on feathers resulting from immersion in dilute nonionic emulsion bath treatment made in Launder-Ometer.

Treatment No.	Weight of feathers		Volume of bath	Volume of EQ-53	DDT in bath		DDT exhausted from bath	DDT on feathers (by weight)	
	Dry	Wet			Weight	Concentration		Expected	Actual
	Grams	Grams	Milliliters	Milliliters	Grams	Percent	Percent	Percent	Percent
C				Treated directly					
1	20	78	300	0.00	0.00	0.00	.....	0.00	0.0
3	20	98	300	1.32	0.33	0.110	60.6	0.43	1.0
2	20	101	300	1.98	0.495	0.165	44.4	0.67	1.1
4	20	104	300	2.64	0.660	0.22	36.4	0.92	1.2
D				Treated in first rinse following washing					
1	20	106	300	0.00	0.00	0.00	.....	0.00	0.0
2	20	117	300	0.00	0.00	0.00	.....	0.00	0.0
3	20	108	300	0.66	0.165	0.055	74.8	0.24	0.6
4	20	87	300	1.32	0.33	0.110	48.5	0.38	0.8
5	20	108	300	1.32	0.33	0.110	52.4	0.48	0.7
6	20	103	300	1.98	0.495	0.165	52.5	0.68	1.3
7	20	103	300	1.98	0.495	0.165	56.6	0.68	1.4
8	20	107	300	2.64	0.660	0.220	66.7	0.96	2.2
9	20	96	300	2.64	0.660	0.220	57.6	0.84	1.9
E				Treated in second rinse following washing					
1	20	112	300	0.66	0.165	0.055	60.6	0.25	0.5
2	20	101	300	1.32	0.33	0.110	54.5	0.45	0.9
3	20	101	300	1.98	0.495	0.165	48.5	0.67	1.2
4	20	97.5	300	2.64	0.66	0.220	60.6	0.85	2.0

Detecting Wax Adulteration

Shortening the chromato-graphic adsorption test for paraffinic hydrocarbons in carnauba wax may be done without decreasing accuracy

By C. S. Treacy

Vice-President, M. Argueso & Co., Mamaroneck, N. Y.

PRIOR to the publication of the test for paraffin type hydrocarbons in carnauba wax (ASTM Designation D 1342 54T) initial testing of crude samples had generally been confined to saponification and acid numbers, melting point and flash point, with such other particular tests as individual firms favored. This was a time consuming procedure. With the advent of the new test, however, this time was greatly extended, as the procedure as promulgated, called for at least six hours of rather close attention.

Granting, therefore, the value of this test in detecting paraffinic adulteration, and the wisdom of using it on all lots of carnauba wax purchased, M. Argueso & Company, Inc., decided to examine the test to see if it might not be advantageously shortened. The chromatic adsorption test has one great advantage: errors, apart from outright loss of solution or eluted product, always tend to occur on the positive side. In other words, the results come high and the carnauba wax appears to contain a greater hydrocarbon content than it possesses. Chromato-graphic analyses showing low hydrocarbon content are almost invariably accurate within the error of the analysis.

That this is so can be easily seen from the very nature of the test. Activated alumina at the temperature used will quickly adsorb and tenaciously hold the esters, free alcohols and acids, resins, etc., present in carnauba wax. On the other hand, the alumina does not retain the hydrocarbons. Therefore, if some error occurs outside of an actual loss, conditions such as moisture absorption by the alumina, or the use of too high an operating temperature, produce high and not low percentages. Insufficient washing is practically the only operational error producing low results, and this is easily prevented by over washing. In general, therefore, if we wash sufficiently, our main problem is to keep carnauba wax solution and alumina in contact for sufficient time to insure adsorption. If we find that the present analysis devotes more than sufficient time for this purpose we can save greatly by shortening this period. In effect, this is what M. Argueso & Company, Inc., did with the result that an hour and forty minutes to a maximum of 2 hours has been found sufficient to complete an analysis.

Equipment

STANDARD equipment as described in the proposed test has been used, with the addition of the following items:

1. A heating tape (Catalog HT351) of Electrothermal Engineering, Ltd., (199-130 volts at two amps.) was wrapped around the separatory funnel and operated at about 32 volts through a variable auto transformer. Any heating tape can probably be easily used. The choice of the one used was due to its small size and low heating capacity. It serves to hold the temperature of the activated alumina at 50° to 55° C.

2. A thermometer was sunk about two inches in the activated alumina and the temperature controlled closely at 50-55° C.

3. A double disc of woven asbestos with a smaller disk of fine bronze mesh stapled between the asbestos pieces was used (after boiling out in heptane) as a bottom seal instead of glass wool. This is a time saver.

4. A thermostatically controlled hot plate with a heavy metal disc as the top was kept at 115° C. On this plate the heptane solution could be held close to 50-55° with but little attention.

These changes or additions in equipment were made in the interest of increased speed, control and efficiency.

Procedure

ABOUT 250 cc of heptane at around 80° C were passed quickly through the column already filled with activated alumina. This served to heat the alumina at 1½ to two inch depth to 50-55° C. At this time the alumina in the bottom of the tube was not yet heated, but this occurred shortly as more solvent came through. The stopcock was wide open. A four gram sample of wax weighed to ± a couple of milligrams, previously dissolved in 700 cc of heptane at 50-55°, was now allowed to flow through the

(*Turn to Page* 223)

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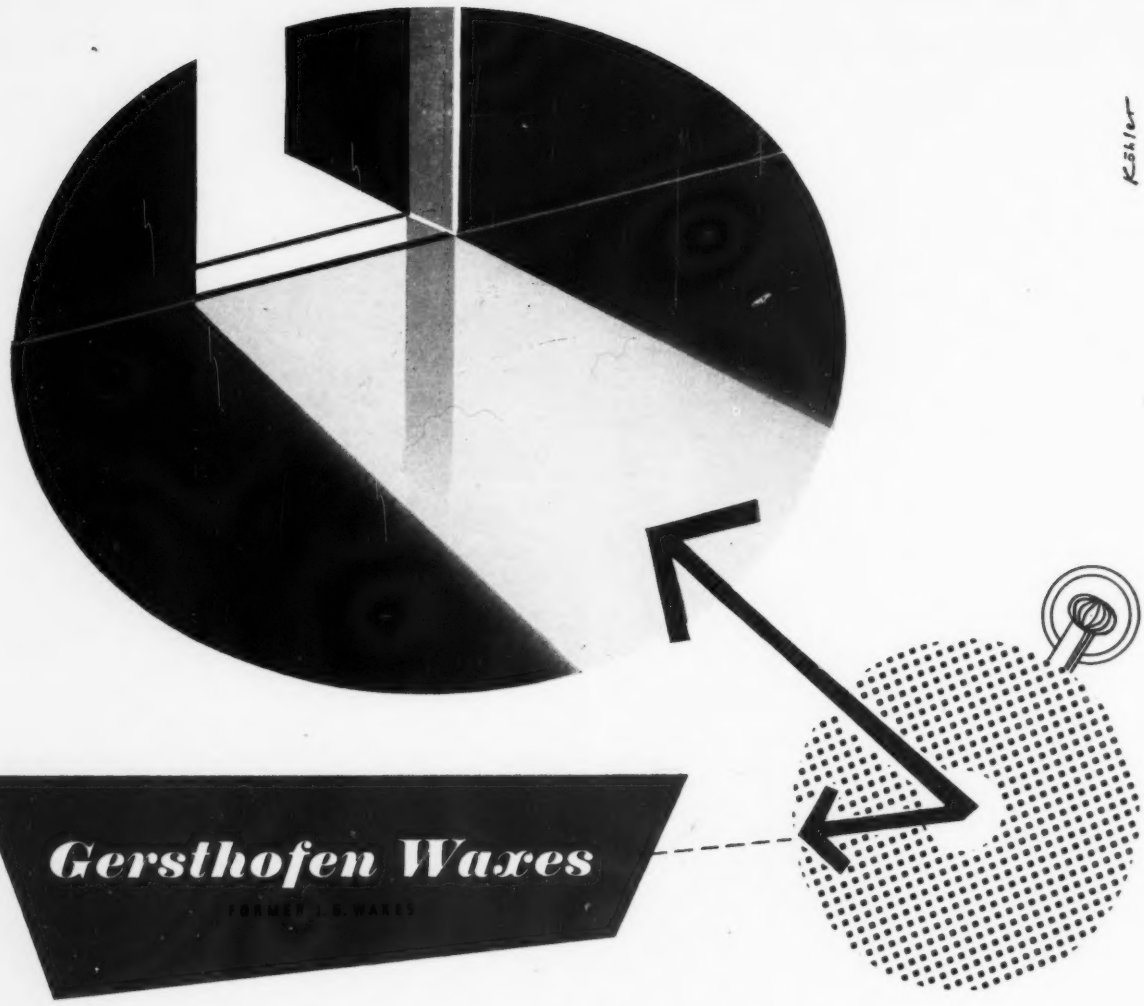


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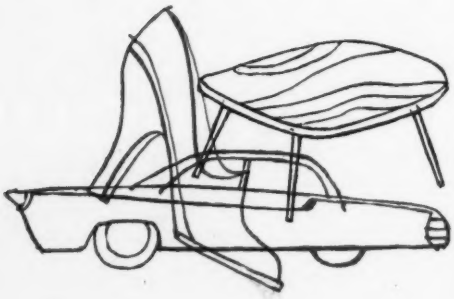
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Sidelights on

Ten Years of AEROSOLS

IN the ten years since the end of World War II, scientific and industrial advances have come at a bewildering pace. Commercial exploitation of these ideas has followed in rapid succession. New marketing techniques and the development of new products have transferred consumer preferences away from established brands to new names, new products and new methods of application. A classic example being the aerosols or pressurized products. In the ten years since the first release of military type aerosols for civilian use a whole new industry has grown up.

Although aerosols for civilian use began to appear on the market in 1945, it was not until two years later, with the advent of the low pressure types in so-called beer cans, did these novel products begin to hit their stride. Perhaps "short steps" would be a better way of putting it, since production in '47 was only 5½ million units, as against 185,000,000 in 1954. Output for 1955, according to the best trade estimates, will be between 225 and 250 million units, probably worth in excess of $250 million at retail.

Since the broad outlines of the early development and more recent history of the industry is fairly well known in the specialties field, of which aerosols are an integral part, we should like to deal mainly with some of the early companies and personnel in aerosols.

The work of two General Motors Corp. research men, Dr. Thomas Midgley, Jr., and Dr. Albert Henne, which culminated slightly over 25 years ago with the announcement of the discovery of "Freon" fluorinated hydrocarbon refrigerants, sparked the development of today's aerosol industry. Although the use of "Freon" as a propellant in aerosols was unforeseen at the time, this discovery definitely is a landmark in the history of pressure packaging. As a result of this development, Kinetic Chemicals, Inc., was set up in 1931 as a jointly owned corporation of General Motors and E. I. du Pont de Nemours & Co., Inc. General Motors owned 49 percent of the stock in Kinetic and du Pont 51 percent. E. G. Robinson was the first president of Kinetic and was succeeded in 1938 by C. D. Porch, who retired in 1950, when du Pont bought General Motors' share. Kinetic then became the Kinetic Chemicals Division, as part of the organic chemicals department of du Pont.

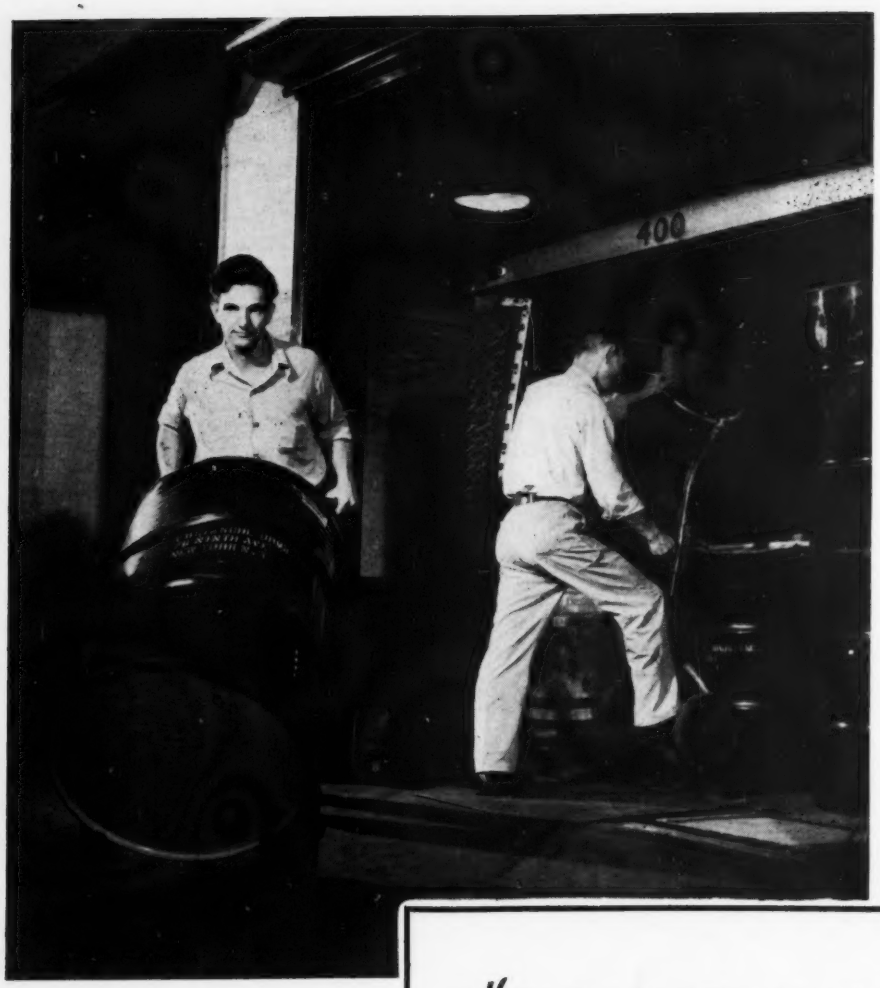
Two other names that stand out in the pioneering stages of what is today's aerosol industry are Edmund Rogers and Charles L. Gebauer. Mr. Rogers, currently president of Ronor Corp., Cleveland, attempted, as early as 1923, to develop pressurized products using carbon dioxide as the propellant. These experiments were apparently not successful because of the problems of high pressure due to the use of a compressed gas within the container and container-valve difficulties.

President of Gebauer Chemical Co., Cleveland, Mr. Gebauer was a pioneer in the use of a compressed liquid propellant in an aerosol package. In the early 1930's he held the patents on a glass aerosol dispenser with a simple capillary tube and spring closure valve, which used low pressure fluorinated hydrocarbons as the propellant. The principle of operation of his package was essentially the same as that used in today's aerosol products. He still markets, on a small scale, a number of self-spraying pharmaceutical items such as a tannic acid spray for burn treatment and a personal deodorant, all in glass containers.

Getting back to Kinetic Chemicals, one name seems to stand out in conversations with many persons in the aerosol industry regarding the "pioneers" in the field. That

Drs. William N. Sullivan, Jr. of the Bureau of Entomology & Plant Quarantine, U. S. D. A., left, and Lyle D. Goodhue, right, now of Phillips Petroleum Co., with Dr. H. L. Haller, U.S.D.A., following receipt of 1954 CSMA achievement award.





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SUPPLIERS of AROMATIC CHEMICALS, BASIC PERFUME and FLAVOR RAW MATERIALS

name is W. W. "Dusty" Rhodes, first sales manager of Kinetic. "Dusty", who now lives in Chapala, Jalisco, Mexico, was later director of sales for Kinetic Chemicals, Inc., from 1938 until 1948. In June, 1948, "Dusty" Rhodes was placed in charge of propellant sales, a post he held until his retirement in the following year. The other member of the Kinetic team was Robert Joyce "Timmy" Thompson. A refrigeration engineer, he was instrumental in the introduction of "Freon" to both the refrigeration trade and the aerosol industry. Mr. Thompson replaced "Dusty" Rhodes as director of sales of Kinetic on Jan. 1, 1948, and continued in that capacity when Kinetic was taken over by du Pont in 1950. From a two-man sales force, Kinetic has increased its staff to its present force of 38, including sales managers and sales personnel.

The du Pont version of how Goodhue and Sullivan, then of the U. S. Department of Agriculture, happened to use "Freon" as the propellant in their early "bombs" is that as a result of a casual suggestion by someone in Kinetic, the material was tried and found workable. Du Pont, of course, had close contact with the government on the use of "Freon" as a refrigerant.

The bulk of the aerosol products today stem from research conducted by the U. S. Department of Agriculture during World War II. In their efforts to find a way of combating the insects which caused disease and discomfort among overseas troops, Drs. Lyle D. Goodhue and William H. Sullivan developed a portable aerosol dispenser which used "Freon" fluorinated hydrocarbon compounds as a propellant. These dispensers were of heavy steel construction and operated at about double and triple the dispensing pressures of the commonly used tin, glass and plastic aerosol containers of today.

With the government as their first customer several firms began filling high pressure aerosol "bombs." Westinghouse Corp., Pittsburgh, is believed to have received the first order from the Navy for 155,000 units. The experimental container, a five pound carbon dioxide cylinder was found to be too heavy for convenience. It was replaced by the steel high-pressure float valve tank of about one pound which Westinghouse used to store refrigerant for its refrigerators. Westinghouse had surplus containers of "Freon" because of wartime restrictions on refrigerator production, and thus was called upon to produce aerosol insecticides. Because it could see no future in the civilian market for aerosol insecticides, Westinghouse dropped out of production after the war.

The other early suppliers for the government, all still in the industry, incidentally, were Regal Chemical Corp., Brooklyn, Airosol, Inc., Neodesha, Kans., and Bridgeport Brass Co., Bridgeport, Conn.

How Regal Started

REGAL has been producing fire extinguishers, and thus was familar with the filling of "Freon" and other propellants. Theodore Heilig, who last month was elevated from president to chairman of the board of Regal, tells this story about how his firm got into the aerosol business. Early in 1942, he received a telephone call telling him to come to Washington, D. C., on a certain date and that plane reservations had been made for him at LaGuardia Field. Believing the call to be the work of a prankster, since in those days there was a radio quiz program that featured telephone calls to listeners' homes, Mr. Heilig was somewhat skeptical at first. Checking the Washington telephone number and extension he was persuaded that the caller was serious. Eventually Regal became one of the leading suppliers for the Navy. In order to do so, however, since there was no pressure filling equipment available, it was necessary for Regal to do the planning, engineering and construction of much of the equipment needed to fill the "bombs" Regal obtained its "shells" from Bridgeport Brass Co., eventually designed its own valve, and claims to have been the first aerosol firm to do pre-blend single drop filling, as against two phase filling. Mr. Heilig also claims that his firm was the first aerosol filler to employ statistical control for all of its products. Mr. Heilig is particularly proud of the fact that Regal was among the first of the aerosol fillers to interest larger companies, such as Colgate-Palmolive, in aerosol products. Regal was the first filler of Colgate's "Rapid-Shave" aerosol shave cream and "Florient" room deodorant, according to Mr. Heilig.

Two messages of commendation the company cherishes resulted from its war work. One is a letter from the War Production Board to Mr. Heilig. Written on Sept. 27, 1945 it states:

"Dear Mr. Heilig:

"I want to take this opportunity, at this time, to extend my congratulations to you and your organization on your splendid performance in behalf of the war effort.

"Your record speaks for itself. From the time you started as a pioneer in the aerosol insecticide industry up to V-J Day, you have filled many millions of dispensers in excellent fashion, in that you have never been delinquent in any delivery nor have you ever had a chemical rejection.

"I am sure that you wil be able to continue such a fine record in dealing with civilian trade.

Emile Z. Weinberg
District Manager
War Production Board
Brooklyn District Office"

The other message was a telegram from Rear Admiral W. B. Young, USN, Chief of the Bureau of Supplies and Accounts:

"Protecting our fighting men from the ravages of malarial infection is a major problem in the tropical jungles. The aerosol-"Freon" insecticide which you manufacture is vital for the effective control of the malarial mosquito in such areas. The Navy has urgent need of large quantities of your insecticide, and counts on your very best efforts in order that overseas shipments may be made on time."

One of the first post-war aerosol insecticides to reach the consumer market was Regal's "Mist-O-Mizer", which contained

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Since aerosols were discovered, Regal pioneered every inch of the way. Among many firsts, Regal was the first to employ *statistical quality control*— an outstanding step in uniformity of product.

Yet Regal has never stopped pioneering. Example: the tremendous strides of "fragrances" in aerosol form are largely due to Regal research and development. Sooner or later you'll be in the aerosol field —and *now* is the time to think about it. Let Regal help you to get launched, or improve your position, right now.

We have a clear, concise story. Learn how our "know-how" can help you. Call or write

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three percent DDT. This one-pound unit was advertised first in the October, 1945, issue of *Soap*. Later, Regal featured its first low pressure "Mist-O-Mizer" in an advertisement in the June, 1947, issue of *Soap*.

Jack Mills, who was then in the New York sales department of Bridgeport Brass Co., Bridgeport, Conn., early learned of the government's interest in procuring aerosol "bombs". Bridgeport was deep in war work, producing shell casings, among other war material at the time. Bridgeport went into the production of aerosols, including valves, for the armed forces and made several million units for the Army and Navy. Ralph Dey, who was president of Bridgeport at the time, Herman Steinkraus, current president, as well as W. Baulieu, chief chemist of the East Main St. plant of Bridgeport, also were active in the development of the company's aerosol program. Mr. Mills, a 30 year veteran of Bridgeport Brass, is now director of purchases for the company.

From war production work it was a logical step for Bridgeport to swing over to producing aerosols for the consumer. To augment its own facilities, Bridgeport acquired those of Westinghouse following the end of World War II. High pressure, refillable units produced by Bridgeport were sold widely for consumer use in the early days of the civilian aerosol industry. The company in late 1946 or early 1947 was also among the first to market a low pressure insecticide aerosol in a can by Crown Can Co. Later, it introduced a household deodorant.

As early as September, 1945, Bridgeport Brass was supplying Gimbel Brothers department store in New York with an insecticidal aerosol that sold for $3.98.

From Bridgeport, too, comes to mind a name that is closely associated with the aerosol industry. That is, Herman R. Shepherd, who joined Bridgeport in August, 1946, where he was administrative assistant to the director of research. This was Mr. Shepherd's first position following his graduation from Cornell University in 1943 and service in the U.S. armed forces from May of that year until May, 1946. At Bridgeport, Mr. Shepherd's duties also involved liaison between sales, production and research, as well as technical service for the sales department, and liaison between outside university research contracts and the company.

In 1947, with A. O. Samuels, Mr. Shepherd was instrumental in the formation of Connecticut Chemical Research Corp., Bridgeport. He entered the corporation during its inception as vice-president of Connecticut Chemical Research and its wholly owned subsidiaries: Bostwick Laboratories, Spray Maid Products, U.S. Packaging Corp., Maryland Devices and Vanguard Ventures. Mr. Shepherd supervised the original plant installation and his early duties were concentrated on research and development. Later his interests and work branched out into the general operations of the business, particularly as they related to sales and, more specifically, contract packaging for private label accounts. Mr. Shepherd was instrumental in setting up the corporation's Canadian subsidiary, Connecticut Chemicals (Canada, Ltd.), in Toronto in 1950. Last year he visited England and France in connection with the establishment of an affiliated English filling operation, Midland Aerosols, Ltd.

William Moburg, president of Rex Research Co., Toledo. Was aerosol his first?



Active in the affairs of the Chemical Specialties Manufacturers Assn., Mr. Shepherd is currently chairman of the administrative committee of the Aerosol Division, on which he has served for three years. He is also a member of the board of governors of CSMA.

On Sept. 30, last, Mr. Shepherd announced his resignation from Connecticut Chemical Research Corp. He has since founded his own company, Aerosol Techniques, Inc., 111 Silliman Ave., Bridgeport, Conn. The firm will do private label manufacturing of aerosols in the chemical specialties, cosmetic and pharmaceutical fields. Mr. Shepherd is president of Aerosol Techniques.

Another of the younger men in the field who has just struck out on his own is Harry E. Peterson. Elsewhere in this issue is a news article on the formation of Peterson Filling and Packaging Co. of Danville, Ill. The new company, which Mr. Peterson heads, is doing contract and custom filling and packaging of all types of containers, specializing in loading aerosols. A native of Chicago, Mr. Peterson was graduated from DePaul University with a B.S. degree in chemistry in 1943. Before and after graduation (1938-47), he served as section chief of the research department in Chicago for Continental Can Co., New York. While with Continental Can, Mr. Peterson was active in the development of an aerosol container for low pressure aerosols. Later, in 1947, he went with Continental Filling Corp. in Danville, Ill., as vice-president and general manager. Continental Filling was an outgrowth of Carter Engineering & Development Co., headed by C. W. Carter, who became president of the new aerosol filling firm. Mr. Carter's company manufactured powder filling machines. Mr. Pe-

terson became president of Continental Filling in 1952 and served in that capacity until his resignation in July of this year.

Mr. Peterson's brother, Robert J., had been employed in the manufacturing research division of Continental Can Co. from 1941 until 1947, when he left to become sales manager of Continental Filling. He has joined Peterson Filling as vice-president.

Harry E. Peterson was chairman of the Aerosol Scientific Committee of the Chemical Specialties Manufacturers Assn. in 1948-49, later became chairman of the administrative committee of the Aerosol Division of CSMA (1950-52), and has served on the board of governors of CSMA since. He is currently second vice-president.

Continental Filling was one of the first, if not the first, contract aerosol loaders. It filled what it believes to be the first low pressure insecticide aerosol, "Fy-Tox" for Rex Research Corp., Toledo, headed by William Moburg.

The Rex insecticide, to be followed in 1950, by a room deodorant, was filled in a can and valve made by Continental Can Co.

Continental Can Co., learning about the development of an aerosol insecticide, felt that the high pressure units were too expensive to sell widely on the consumer market and became interested in producing containers for low pressure units. One of the big hurdles facing the development of the low pressure aerosols was a suitable valve. Because of the difficulty in obtaining what it considered a satisfactory valve from outside sources, Continental decided to develop one of its own. Working on this project were George Ducharme, product sales manager for non-processed foods, and John Henchert, a development engineer in the research and engineering department in Chicago. Also participating were Roger Wilson, general manager of customer research division of Continental in Chicago, and Curt Maier, in charge of research, also in the Chicago research and engineering department in Chicago. The valve was successfully developed in 1946 and first manufactured on a commercial scale in February, 1947.

Mr. Ducharme, who was closely connected with the early development of the low pressure aerosol is now with Reynolds Metals Co. in Louisville, Ky.

Although the Continental can and valve were widely used for low pressure aerosols, the company felt its valves were foreign to its business and the valve business was eventually sold to Seaquist Manufacturing Corp., Cary, Ill.

Initially, Continental had a three piece 12 ounce can. Continental now has an aerosol container line ranging from a three ounce small size unit to a tall 16 ounce can. Leonard G. Conella took over in 1946 as product sales manager, succeeding Mr. Ducharme.

Crown Can Co., Philadelphia, made its first shipment of "Spra-tainer" aerosol cans to Airosol, Inc., Neodesha, Kans., for their insecticide, "Jet" in November, 1946. It is believed this product was packed in either December of that year or in January 1947. The first Crown unit was a modified drawn beer can. The can was filled from the bottom and the top and valve sealed. Crown also shipped its first one inch opening can to Bridgeport Brass Co. in 1947. Crown never made a valve, but is responsible for the development of the one inch valve opening and cap and the standard method of crimping.

W. Earl Graham, then, as now, manager of research for Crown's can division; Edward Stuart and Harvey Tull, in the sales end, were active in the development of Crown's interest in the aerosol industry. Mr. Graham has been active in the affairs of the Chemical Specialties Manufacturers Assn., and is currently serving on the policy advisory committee of CSMA.

One of the most unusual stories of a personality in the aerosol industry is that of Frederick G. Lodes of Precision Valve Corp., Yonkers, N. Y. Fred's career in the aerosol industry, although he did not realize it at the time, dates back to the New York World Fair days of 1939-40. In those two summers he lectured and demonstrated the new refrigerant "Freon" for du Pont at the Fair. Earlier, in 1938, he received a B. S. degree in chemistry from Fordham University, which he followed up with a masters degree in chemistry from Columbia in 1940. He was also head of the chemistry department of Irving Prep School in Tarrytown, N.Y., in 1939-40. With this background he joined General Chemical Corp. in 1941, and for the next four years was technical senior supervisor of TNT production at the West Virginia ordnance works of General Chemical. In 1945 he went into new product development for General Chemical, specializing in the development of propellants for aerosols. The patents on General's "Genetron" propellants were taken out in Fred's name. Fred's work on propellants for aerosols included the formulation of many aerosol products of today. As a result of this work he made wide contacts in the aerosol field with can manufacturers, aerosol fillers and others interested in the formulation and sales of aerosol products. In 1949, General began the production of aerosol propellants. As a result of his work with aerosols, Fred realized that one of the many obstacles to the development of this method of dispensing a wide variety of products was the absence of a universal valve — a valve suitable for all products and all containers. The early valves were quite satisfactory for the dispensing of insecticides, but a valve for foam type products, residual sprays, powder, etc., was still to come. The design of the first valve produced by Precision is basically the same as that used for the many different types of valves made by the company today. Fred Lodes is secretary-treasurer of Precision Valve Corp. and since its inception in 1950 it has grown to be the largest aerosol valve manufacturer in the world.

Pennsalt Advances Sloan

Russell W. Sloan has been advanced to the newly created position of manager of commercial development of Pennsylvania Salt Manufacturing Co., Philadelphia, it was announced Nov. 1 by William A. Lalande, vice-president. Prior to his appointment Mr. Sloan served in a similar capacity on the staff of the Sharples Chemicals Division. He joined the Sharples organization in 1947. In his new post he will be responsible for market analysis, research and development on new products and on established products new to Pennsalt.

Iodine Sanitizing Solutions

(*From Page* 197)

riod of contact.

Experiment 4

The capacity technique was modified by varying the volume of the transplant at the designated time intervals. Instead of employing the 4 mm. loopful, volumes of 0.1 ml., 0.2 ml., 0.3 ml., 0.4 ml., and 0.5 ml. were transplanted. To compensate for a change in volume if the tests were performed with the use of one seeding tube, a series of ten seeding tubes each were used for every dilution of sanitizing solution employed in the testing. Every tube was inoculated with the respective number of increments (from one 0.2 ml. increment in the first tube to ten 0.2 ml. increments in the last tube) and the designated volume was removed from each at the specific time intervals and placed into tubes containing 10 ml. quantities of sterile F. D. A. broth. The latter were incubated for 48 hours and the findings recorded.

A gradual decrease in the bactericidal efficiency was noted at both temperatures, as the volume of sanitizer-bacterial mixture transplanted was increased. In free iodine concentrations of 50, 100 and 200 p.p.m., there was a one increment decrease in the efficiency when increased volumes (0.1 to 0.5 ml.) were employed for subculturing instead of the 4 mm. loopful. In solutions containing free iodine concentrations ranging from 1 to 25 p.p.m., the first two increments showed no growth when subcultured with a 4 mm. loopful, but showed growth in all instances when subcultured with volumes of the sanitizing solution - bacterial mixture ranging in volume from 0.1 to 0.5 ml.

Sodium hypochlorite solutions also displayed a decrease in bactericidal efficiency as the transplant volume was increased. There was a one increment decrease in buffered available chlorine concentrations of 100 and 200 p.p.m. Distilled water dilutions of sodium hypochlorite solution required 600 p.p.m. available chlorine in the first increment to kill the test bacteria, when increased volumes (0.1 to 0.5 ml.) were employed, instead of 575 p.p.m. available chlorine.

Experiment 5

Capacity tests were employed utilizing 10 ml. of dilutions of the sanitizing solutions with 0.2 ml. of the test bacteria (1 to 50 ratio).

The findings are reported in Table III. It was noted that the iodine-phosphoric acid (low pH) buffered solutions, exhibited efficiency in the first increments from 2 to 8 p.p.m., second increments at 10 p.p.m., third increments at 20 p.p.m., fourth increments at 25 p.p.m., fifth increments at 50 p.p.m., and tenth increments at 100 p.p.m. and above of free iodine.

Unbuffered free iodine solutions (A and B) did not display efficiency until the first increment of 20 p.p.m. free iodine.

Sodium hypochlorite in phosphate buffer (pH 8.0) did not display efficiency in the first increment until 50 p.p.m. available chlorine were present and required 350 p.p.m. chlorine to kill the bacteria in the tenth increment. In distilled water 100 p.p.m. chlorine were required for killing the test bacteria in the first increment and 500 p.p.m. were required for killing the tenth increment.

Experiment 6

Experiment 5 was repeated employing the most recent Department of Agriculture modification (8) with 10 ml. of sanitizing solution and 0.05 ml. of the test bacteria (a ratio of 1 to 200).

The findings are reported in Table IV.

Using this new modified technique, 20 p.p.m. free iodine in the phosphoric acid iodide-iodine solutions and in the iodophor solutions at 20°C. were capable of killing through and including the tenth increment, whereas 50 p.p.m. free iodine at 20°C. were required for iodine solutions A and B to obtain similar results.

Sodium hypochlorite solutions diluted with phosphate buffer to contain 200 p.p.m. chlorine were capable of killing at 20°C. up to and including only the seventh increment and up to and including only the fourth increment when diluted with distilled water.

Summary and Conclusion

1) A study of the bactericidal efficiencies of Iodine Tincture (U. S. P. XIV), Iodine Solution (N. F. IX), various commercially available iodophors, and other preparations containing free iodine and recommended for use in sanitization procedures was conducted. Chlorine (from sodium hypochlorite solution) was employed as a control for comparison.

Micrococcus pyogenes var *aureus* #209 and *Salmonella typhosa* Hopkins #26 were employed as the test bacteria. Various "capacity-tests" for germicidal action at both 20°C. and 37°C. were the techniques used for evaluation.

2) Five ml. portions of the respective concentrations of iodine and iodophor sanitizing solutions (2, 4, 6, 8, 10, 20, 25, 50, 100 and 200 p.p.m. free iodine) were employed. Varying volumes of the test bacteria (1 ml., 0.5 ml., 0.4 ml., 0.3 ml., 0.2 ml. and 0.1 ml.) were added as increments. Chlorine controls were prepared with sodium hypochlorite both with M/15 phosphate buffer (pH 8.0) and with

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distilled water. The most consistent and reproducible results were obtained with the 0.2 ml. inoculum of test bacteria. Employing 5 ml. portions of 25 p.p.m. free iodine prepared with Iodine Tincture (U.S.P. XIV) or Iodine Solution (N. F. IX) both of the test bacteria were killed only in the first increment at both 20°C. and 37°C. The selected iodophors and the iodine-iodide-phosphoric acid preparations killed both the test bacteria in the first increment at 6 p.p.m. free iodine. Chlorine solutions prepared from sodium hypochlorite solution diluted with distilled water required 575 p.p.m. to kill both test bacteria at only the first increment, whereas sodium hypochlorite solution diluted with M/15 phosphate buffer solution (pH 8.0) required 100 p.p.m. chlorine for identical results at both 20°C. and at 37°C.

3) Hydrogen - ion concentration determinations were made on each dilution of sanitizing solution under test, on each test bacterial culture, and on each increment and mixture thereof, as found in the capacity tests for germicidal action.

In 100 p.p.m. free iodine concentrations, Iodine Tincture (U. S. P. XIV) and Iodine Solution (N. F. IX) rapidly changed to the alkaline side (above pH 7.0) after the second incremental addition of broth culture of the test bacteria. The more effective sanitizing solutions of iodophors and iodine-iodide-phosphoric acid preparations remained acid throughout the test and even after the addition

(*Turn to Page* 223)

Table IV—Capacity Test

10 ml. Germicide + 0.05 ml. Inoculum

Bacteria	Temp. C°	p.p.m.	A	B	C	D	E	F	G	H
S. TYPHOSA	20°	2	1	1	2	2	2	2	0	0
		4	1	1	4	4	4	4	0	0
		6	1	1	5	5	5	5	0	0
		8	1	1	5	5	5	5	0	0
		10	3	3	6	6	6	6	0	0
		20	4	4	10	10	10	10	0	0
		25	5	5	10	10	10	10	0	0
		50	10	10	10	10	10	10	2	0
		100	10	10	10	10	10	10	3	2
		200	10	10	10	10	10	10	6	4
	37°	2	1	1	2	2	2	2	0	0
		4	1	1	4	4	4	4	0	0
		6	1	1	5	5	5	5	0	0
		8	1	1	5	5	5	5	0	0
		10	3	3	6	6	6	6	0	0
		20	4	4	10	10	10	10	0	0
		25	5	5	10	10	10	10	0	0
		50	10	10	10	10	10	10	3	1
		100	10	10	10	10	10	10	4	3
		200	10	10	10	10	10	10	7	6
M. PYOGENES Var. AUREUS	20°	2	0	0	1	1	1	1	0	0
		4	0	0	1	1	1	1	0	0
		6	0	0	1	1	1	1	0	0
		8	0	0	3	3	3	3	0	0
		10	1	1	6	6	6	6	0	0
		20	2	2	10	10	10	10	0	0
		25	3	3	10	10	10	10	0	0
		50	5	5	10	10	10	10	2	0
		100	10	10	10	10	10	10	3	2
		200	10	10	10	10	10	10	5	4
	37°	2	0	0	1	1	1	1	0	0
		4	0	0	1	1	1	1	0	0
		6	0	0	2	2	2	2	0	0
		8	0	0	4	4	4	4	0	0
		10	1	1	7	7	7	7	0	0
		20	2	2	10	10	10	10	0	0
		25	4	4	10	10	10	10	0	0
		50	5	5	10	10	10	10	2	0
		100	10	10	10	10	10	10	4	3
		200	10	10	10	10	10	10	7	5

Number Designates Highest Increment Killing Test Bacteria.

HOW TO STAR YOUR PRODUCTS AS AEROSOLS



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Nothing in merchandising could be simpler than giving your products the sales advantages of aerosol packaging. If they can be sprayed, brushed on, dusted or daubed, see any of the Contract Fillers listed here. They have the facilities and skills to take over the entire packaging job—whether you want a small test run or volume production. You won't have to invest a penny in plant or personnel.

Specialization by the Contract Filler makes possible economies you might need months or years to achieve. He has the accumulated experience to guide you in obtaining the right containers, valves and formulations. Call on his help now . . . he is your short-cut to the booming aerosol market.

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GENETRON 101—Monochlorodifluoroethane
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GENETRON 226—Trichlorotrifluoroethane
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Aeropak, Inc.
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Chicago 32, Ill.

Aerosol Co., Inc.
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Neodesha, Kansas

Aerosol Corporation of the South
203 Scott St.
Memphis, Tenn.

Aerosol Methods
Johnson Road
Norristown, Pa.

Aerosol Techniques, Inc.
111 Silliman Ave.
Bridgeport, Conn.

A-M-R Chemical Co., Inc.
985 East 35th St.
Brooklyn, N. Y.

Armstrong Laboratories
421 La Grange St.
Boston 32, Mass.

Associated Brands Inc.
35 Claver Place
Brooklyn 16, N. Y.

G. Barr & Co.
3601 South Racine Ave.
Chicago, Ill.
Also Bronx, N. Y.
Los Angeles, Calif.

Bridgeport Brass Co.
East Main St. & Crescent Ave.
Bridgeport, Conn.

Bromm Chemical Co.
319 Goodsell St.
Evansville, Indiana

Capitol Packaging Co.
1441 S. Circle Ave.
Forest Park, Ill.

Chase Products Co.
20th & Gardner Road
Broadview, Ill.

Claire Manufacturing Co.
7640 S. Vincennes Ave.
Chicago, Ill.

Cleveland Aerosol Packaging Corp.
425 Lakeside Ave., N.W.
Cleveland 13, Ohio

Connecticut Chemical Research Corp.
706 Bostwick Ave.
Bridgeport, Conn.

Connecticut Chemicals (Canada) Ltd.
Curity Ave. and Hollinger Road
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123 North Hazel St.
Danville, Ill.

Edgerton & Riley, Inc.
Muirkirk, Md.

Eveready Pressurized Products, Inc.
1022 Belt Line St.
Cleveland, Ohio

Fluid Chemicals Co., Inc.
878 Mt. Prospect Ave.
Newark, N. J.

Gard Industries, Inc.
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Wilmette, Ill.

Inland Paint & Chemical Co.
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Robert J. Kerr Chemicals, Inc.
9 South Fairview Ave.
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LaMaur Products, Inc.
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of the tenth increment of the broth culture of test bacteria. The results of the capacity tests revealed that solutions of free iodine for use as sanitizing agents are more effective if the original solution is buffered and kept on the acid side throughout their use, this acid pH being maintained even in dilute concentrations.

4) Variations in the capacity tests by varying the volume of bacteria-sanitizing solution mixtures transplanted from a 4 mm. loopful to 0.1, 0.2, 0.3, 0.4 and 0.5 ml. at the designated time intervals revealed decreases in bactericidal efficiency as the transplant volume increased.

5) Capacity tests were conducted with the inoculum volume of culture of test bacteria and the volume of sanitizing solutions in ratios of 1:20, 1:50 and 1:200. Greater bactericidal efficiencies were recorded for a smaller volume (0.05 ml.) inoculum (higher ratio) than for the larger volumes (0.2 ml.) of inoculum (lower ratio).

6) From the results obtained it is evident that the 25 p.p.m. free iodine concentrations recommended for sanitizing procedures for cleansed surfaces are highly effective and are equivalent to at least 200 p.p.m. of chlorine (from sodium hypochlorite), using distilled water as the diluent.

Concentration as low as 10 p.p.m. free iodine were found to be effective against the test bacteria when using the acid-buffered iodide-iodine solutions or iodophors. In fact, in the more recently introduced modification (1:200 ratio), even smaller concentrations of free iodine (from these acid-buffered iodide-iodine solutions) were effective.

7) In using chlorine (from sodium hypochlorite) as a control for evaluation, it was noted in the capacity tests that 50 p.p.m. chlorine, using phosphate buffer pH 8.0 as the diluent, was as effective as 100 p.p.m. chlorine when water was used as the diluent. In the latter capacity tests, the bacteria-dilution mixture proportion was 1:50 or 1:200. There was even a very marked and greater difference in the findings when the proportion was 1:25.

8) It may be desirable to determine the concentration of diatomic iodine, triatomic iodine and possibly hypoiodous acid present under practical use conditions. Such observations may supply additional data indicating the greater effectiveness of acid buffered solutions of free iodine as sanitizing agents.

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The Story of Glim

(*From Page* 49)

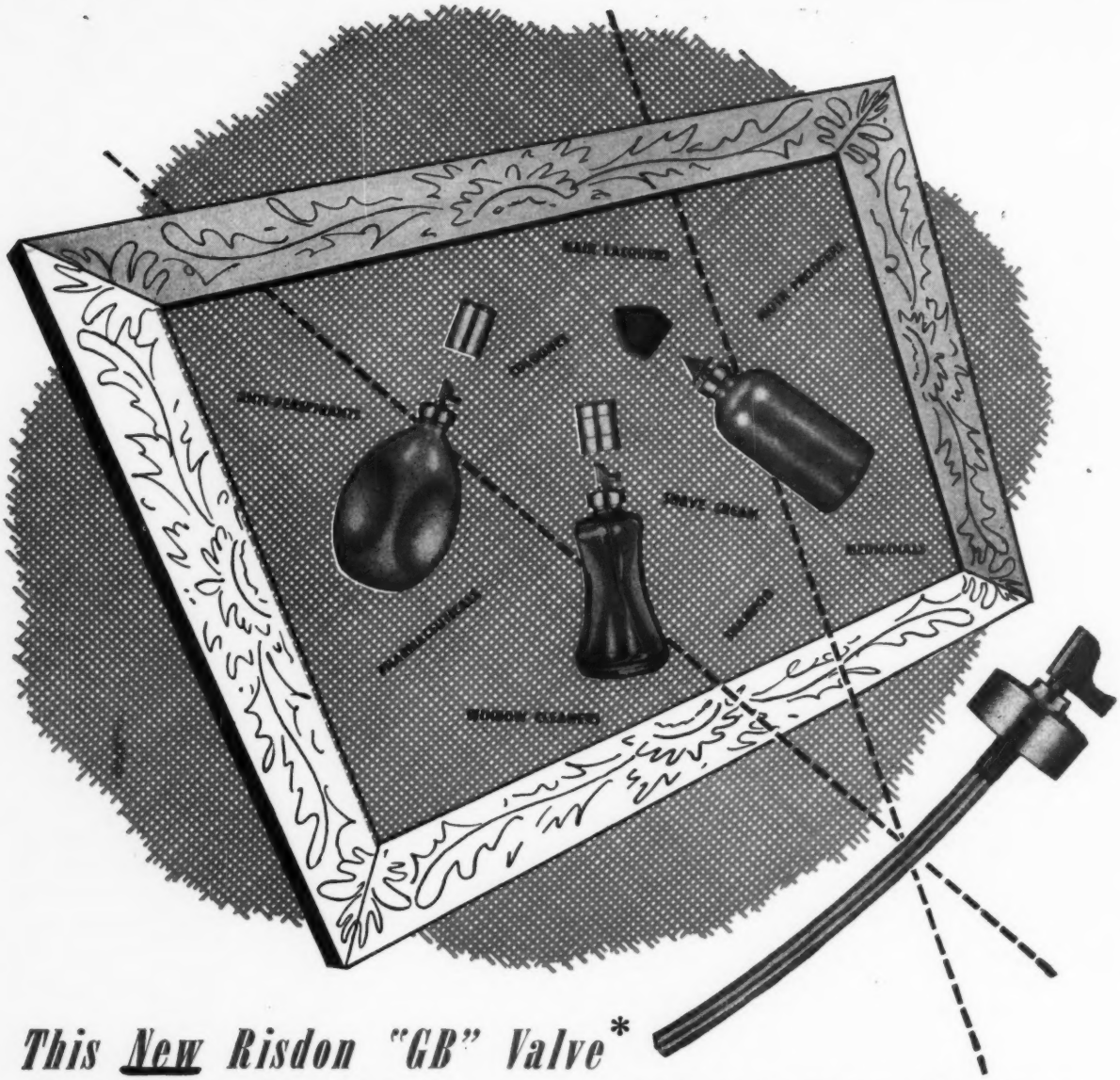
understanding of sales problems, business economics and the technical requirements of our customers, not to mention the fact that it opened up a sizeable market for the types of surfactants we manufacture.

Detecting Wax Adulteration

(*From Page* 205)

alumina with the stopcock wide open. This required about 25 minutes. The percolate was evaporated in a 2000 cc beaker on a hot plate under an effective hood as soon as it came through. When percolation was complete, 400 cc of fresh heptane at 50° to 55° C was run through, with the stopcock wide open. The last 50 cc of this wash liquor was evaporated as a test for completeness of washing. Again evaporation was coincidental with washing. More washing was done if needed. Combined solution and wash were evaporated to 50 cc, poured into a small previously weighed pyrex dish, and evaporated to dryness on a hot plate. The end of this evaporation was watched carefully. Almost as soon as evaporation is complete, the hydrocarbons will start to smoke. At the very first sign of smoking(and this must be watched) the dish was removed, cooled and weighed. In following this procedure it will be found that the loss due to smoking is infinitesimal, but that all heptane has been removed. Checks within 1 percent and considerably closer were usually achieved.

Should crude wax be tested, fine foreign material may clog the top of the alumina. If the top ¼



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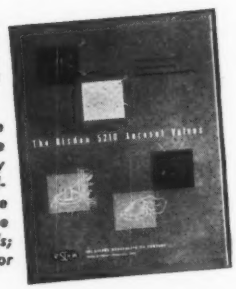
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This bulletin illustrates the versatility of the Risdon valve for dispensing virtually any pressurized product, including standard or 3-phase aerosols, ultra low pressure products, or foam materials; packaged in either bottles or cans.



RI-34-A

Table 5.—Results of the quantitative analyses of goose feathers treated with EQ-53. Figures below express the amount of DDT present in terms of percentage by weight of the feathers. A minimum of two determinations was made of each sample.

Condition and grade of feathers	Rate of application								
	1/3 oz./lb.			1/2 oz./lb.*			3/4 oz./lb.		
	Mach. #1	Mach. #2	Avg.	Mach. #1	Mach. #2	Avg.	Mach. #1	Mach. #2	Avg.
Damp dry	.....	.....	0.24	.....	.....	0.36	.....	.....	.....
Unassorted	0.25	0.18	0.215	0.44	0.39	0.415	0.43	0.33	0.38
Sorted									
A	0.15	0.15	0.150	0.30	0.28	0.290	0.23	0.25	0.240
B	0.11	0.18	0.145	0.30	0.28	0.290	0.32	0.20	0.260
CBC	0.14	0.20	0.170	0.34	0.35	0.345	0.29	0.20	0.245
DYD	0.20	0.26	0.230	0.22**	0.58	0.400	0.60	0.37	0.485

*Intended; actual rate of application was 0.47 oz./lb.
**Low deposit may have been due to the presence of untreated feathers in the compartment containing this grade.

inch be stirred from time to time with a steel spatula, speed of passage through the funnel will be assured.

While the reasons so far quoted for shortening the time of the analysis have, as far as M. Argueso & Co., Inc., know, been based on sound theoretical principals, the actual results achieved are still more important. The results of considerable testing of various lots of waxes by the author are, therefore, given here, as we think that they will be convincing.

The samples marked with an asterisk are considered adulterated. The sample marked with two asterisks was washed with very hot heptane through error. Many other analyses proving the general usefulness of this shortened test were also run, but are of no particular interest here.

We believe that the results obtained in the above tests indicate clearly that for all practical purposes, the chromato-graphic adsorption test for paraffinic hydrocarbons can be shortened without any decrease in accuracy. We trust that our work will not be construed in any way as a reflection on the analysis itself, which we believe is well set up. For plant use, however, and especially for laboratories where this test must be done very often, we feel that this shortened method is not alone accurate, but also quite adequate. We offer it as a helpful suggestion to the wax trade.

Samples of crude and a few refined carnauba shipments — all ostensibly pure.

Percent Hydrocarbons	
14.40) Duplicates*	
14.43) Adulaterated Crude	
1.00	2.10
.93	1.20
1.35) Duplicates	1.87
1.37)	1.25
6.2*	1.91
8.1*	1.72
1.26	.975
2.50	.970
1.27	1.60
1.10	.93
1.00	1.50
.97	.60
.975	.60
.92	.60
1.80	4.02*
2.25	.95
3.80**	.50
5.27*) Duplicates	2.00
4.22*)	2.05
1.20	.76
.56	.62
1.10	

*Believed adulterated.
**Washed at 70° C.
Average of all tests not marked by asterisks—1.25.

Insect Control on Feathers

(*From Page* 204)

for cleaning feathers was ideal for using EQ-53. As mentioned previously, the insecticide was added in the rinse water immediately after the rinsing period and agitated in the emulsion bath for an additional five minutes. The treatment did not interfere in any way with the regular process except to extend the time required for each run by five minutes.

The results of the chemical analyses are shown in tables 5 and 6. The DDT deposit on the unassorted feathers with the ½ ounce per pound treatment was at the desired level. The 1/3 ounce application was a little low and the 3/4

Table 6.—Results of the quantitative analyses of Long Island white duck feathers treated with EQ-53. Figures below express the amount of DDT present in terms of percentage by weight of the feathers. A minimum of two determinations was made of each sample.

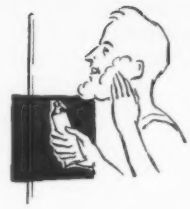
Condition and grade of feathers	Rate of application			
	1/3 oz./lb.	1/2 oz./lb.		
		Mach. #1	Mach. #2	Avg.
Unassorted	0.21	0.42	.....	0.42
Sorted				
A	0.22	0.32	0.28	0.30
B	0.33	0.50	0.45	0.48
CBC	0.45	0.45	0.54	0.49
DYD	0.44	0.64	0.64	0.64



Simplifies wash-away



Strengthens adhesion



Promotes smoothness



Imparts pleasant slip



Gives complete freeze-thaw stability



Prevents caking

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BEN-A-GEL has unique thickening powers. Very small concentrations do amazing things for liquid make-ups, creams, lotions (medicated and unmedicated), salves, ointments, and comparable compounds.

Simplifies wash-away: BEN-A-GEL keeps deposited films a little moist to aid wash-away. It also promotes pigment wetting, helps loosen particles that cling to the skin.

Strengthens adhesion: BEN-A-GEL aids other binders used in such products as suntan make-up or calomine lotion. It keeps film flexible, resistant to flake-off.

Promotes smoothness: Bland, non-abrasive BEN-A-GEL is chemically inert. Ultimate particle size, when fully dispersed, is one micron or less.

Imparts pleasant slip: BEN-A-GEL develops a thixotropic body. Compounds do not "run" yet they rub in smoothly without "dryness" or friction.

Gives complete freeze-thaw stability: BEN-A-GEL maintains emulsion even from freeze to thaw. It also imparts resistance to thin-out at high temperatures.

Prevents caking: BEN-A-GEL prevents hard settling in all pigmented systems. In products like liquid mascara, it imparts long shelf life.

With BEN-A-GEL, products stay fresh and sweet. BEN-A-GEL is non-oxidizing and not subject to micro-biological degradation.

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ounce application gave approximately the same residue as the ½ ounce application. The deposits obtained on both the goose and duck feathers were within the range desired.

The results obtained with the sorted feathers are quite interesting. The general tendency was to get a proportionately higher deposit as the feathers decreased in size. This can be explained by taking into consideration the ratio of the weight of the shaft and the barbs in the different sized feathers. With the larger feathers, the weight of the shaft as compared to the weight of the barbs is considerably greater. As the feathers get smaller, the weight of the shaft decreases and that of the barbs increases proportionately until in the downs (DYD) the weight of the barbs is considerably greater than that of the shaft. Since the barbs are expected to pick up more of the DDT, the greater the weight of the barbs as compared to that of the shaft, the higher the deposit of DDT expected. The only exception to this was the deposit on the downs (DYD) in Machine #1 of the ½ ounce treatment. Since this was the first treatment run, it is believed that some untreated feathers were present in the machine when the treated feathers were introduced, thus lowering the amount of DDT recovered in a known weight of downs.

Conclusion

LABORATORY and mill studies demonstrated that the necessary deposit of DDT to protect feathers from insect damage can be accomplished satisfactorily and economically by using EQ-53 in the last five minutes of the rinse during the normal processing of feathers. A deposit of 0.5 ± 0.25 percent DDT by weight on all grades of feathers is obtained by using ½ fluid ounce of EQ-53 per pound of feathers.

Summary

THERE is a great need for a satisfactory, economical means of treating feathers to protect them against insect damage during long-term storage. Feathers, like wool and other keratinous materials, are subject to damage by clothes moths and carpet beetles. Laboratory tests showed that deposits of DDT at .2 percent by weight or higher would protect feathers satisfactorily against insect damage and the treatment would be effective for four years or longer. It was found that DDT deposits of 0.5 ± 0.25 could be obtained by simply immersing feathers in nonionic emulsion baths containing ½ fluid ounce of EQ-53 per pound of feathers. Mill application of EQ-53 to feathers proved to be both practical and economical.

The ideal way to use EQ-53 is to introduce it at the end of the rinse period and extend the period for five minutes with the water valves closed.

The DDT deposits obtained with the mill treatment of Formosa goose and Long Island duck feathers were similar. There is definite evidence that the smaller feathers and downs pick up more DDT by weight than do larger feathers.

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Oils and Fat Outlook

(*From Page* 56)

with respect to the acreage representing the surplus. A Government payment of $10 to $12 per acre has been mentioned for diverting acreage to a soil bank. This payment would, of course, be about the only income to the farmer, whereas on an acre of soybeans the farmer would receive income commensurate with the meal and oil value. It is to be noted also, that the increased soybean production would benefit the whole economy with specific benefits to farm and other labor, farm machinery, processing and transportation.

Under the proposal to buy oil, CCC would take over the surplus in a concentrated form with attendant savings in storage, freight and handling costs. This taking over of the surplus in concentrated form is similar in principle to some other proposals which have been advanced for the Government to purchase lower quality cuts of pork and lard. The alternative, whenever markets are below support, would be the impounding of large quantities of soybeans under Government loan with consequent disruption to feeders of soybean meal, the mixed feed industry and, of course, the domestic crushing industry. When supplies of soybean meal are restricted by the impounding of soybeans under Government loan, meal consumption is lost which is not made up at a later date.

Exports of soybeans from the United States during the crop year just ended should approximate 57 or 58 million bushels. While exports of soybeans, as such, might be expanded, there appears to be a definite practical limitation on total per annum exports in line with meal requirements abroad. Some Government officials estimate the maximum export meal requirements are equivalent to no more than 70 or 80 million bushels of soybeans. To the extent that meal is purchased from the United States for export, the potential soybean demand would be proportionately reduced.

It can well be argued that the surplus capacity of our farm plant can be utilized at much less cost to the Government under price support operations by using it for the production of soybeans rather than for the continued production of surplus grains. It seems apparent, too, that this would result in higher farm income.

The Government is in a much better position to develop foreign markets for edible oils than are individual processors. The oils and fats and products are needed

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in some areas where there are no meal requirements and in many cases no crushing or processing facilities. No doubt, therefore, a good part of such market development could be in the form of finished products such as shortening, margarine and cooking or salad oils. Export interest in 1955 crop cottonoil in the free market has evidently resulted in large measure from sales of the Government-held inventories of cottonoil. This apparent expansion in foreign demand for cottonoil is due at least in part to the operations under Public Law 480 where surplus agricultural commodities are sold for foreign currencies. An additional and important factor is the fact that as per capita fat consumption is increased in any area, it tends to hold the increased level so long as supplies are available at reasonable prices. Thus it seems evident that as the largest exporter of oils and fats, the United States should be interested in the development of markets abroad which will remain buyers in the world market as they are developed.

Any apparent surplus oil production could be handled by the direct purchase program as proposed which we believe to be the best method. This program could be supplemented by purchase authorizations under Public Law 480 or by the purchase of a part of the surplus in the form of oil as a more direct means of improving hog prices which are currently cause for considerable concern.

To sum up the domestic statistical situation, prospects are for continuing high level production with possibly some expansion in future years and for maintaining the present position of the United States as the largest export source of oils and fats.

Oils and fats production in the United States is mostly a by-product production. Major by-product items are lard, cottonseed oil, tallow and grease. Significant exceptions are flaxseed and soybeans. Price supports are in effect for flaxseed and soybeans as well as for peanuts which are supported on an edible nut basis and for cottonseed and tung nuts. Domestic price levels are influenced largely by export demand on the one hand and the support price policies of the Department of Agriculture on the other. Although as mentioned, our domestic per capita consumption of edibles is inelastic, material shifts occur within the total primarily because of changing price relationships. As oils and fats become more and more interchangeable, we can expect these shifts to occur with smaller differences in the price relationships.

Soap Making in Russia

(*From Page* 53)

sumers' Cooperatives should organize the collection of wild saponin-bearing plants (soaproot, soap plant, adonis, alpine violets, etc.) and possibly even cultivate them. This would provide extra income for the collective farms."

Dmitriyev said that although much concentrated scientific and practical work remains to be done on washing agents in Russia, research in this field is still done by individual scientists without coordination or supervision.

"Major attention has now been turned to synthesizing individual washing preparations and to perfecting the design of washing machines. Meanwhile, research on the washing process itself and the use of various physical-chemical methods could lead to the discovery of entirely new methods of washing various articles.

"Recently, for example, the chemistry laboratory of the D. I. Mendeleyev All-Union Chemistry Society, working with the All-Union Wool Research Institute, carried out interesting research on a process for washing wool through the action of ultrasonics. This method produces considerably better results than conventional washing. The wool is not only washed and preserved better but is sterilized as well. Unfortunately, these experiments have been discontinued."

Dmitreyev criticized the chemical industry for producing "only two or three types" of insecticides and very few other household chemicals, although many have been developed. He said that a major difficulty is that research institute scientific personnel fail to follow through with their own proposals and accomplishments. "They consider their mission accomplished once the experimental work has been done."

At the research level, the Soviet academician asserted, Russia has led the world in making new discoveries about washing agents and methods. But, he admitted, few results of this work are apparent at the consumer level.

"A group of Soviet scientists headed by Academician P. A. Rebinder worked out the now generally-accepted theory of washing action which provided the key to solving the entire problem. In 1913, Professor G. S. Petrov first created a new washing agent from petroleum products—a type nearly identical with many excellent synthetic washing agents now being made in our country as well as in Germany, Great Britain and the United States.

"While dozens of synthetic washing products have been developed in Russia, only 'Novelty' has been placed on retail sale. Demand was so great that 'Novelty' disappeared from store shelves even in Moscow. Work on a new plant to produce 'Novelty' in Kazan is progressing very slowly.

"It is known that water can be softened with mineral salts without using fatty soaps. Tetra- and hexametaphosphates and similar phosphates are excellent water softeners. However, these salts are not available at retail, while the water softeners now sold for home use (soda, water glass, sodium phosphate, etc.) do not ordinarily serve their purpose under household conditions.

"It is time," Dmitreyev concluded, "that our industry mobilizes its efforts to speed production of new washing agents and chemical preparations useful in everyday living."

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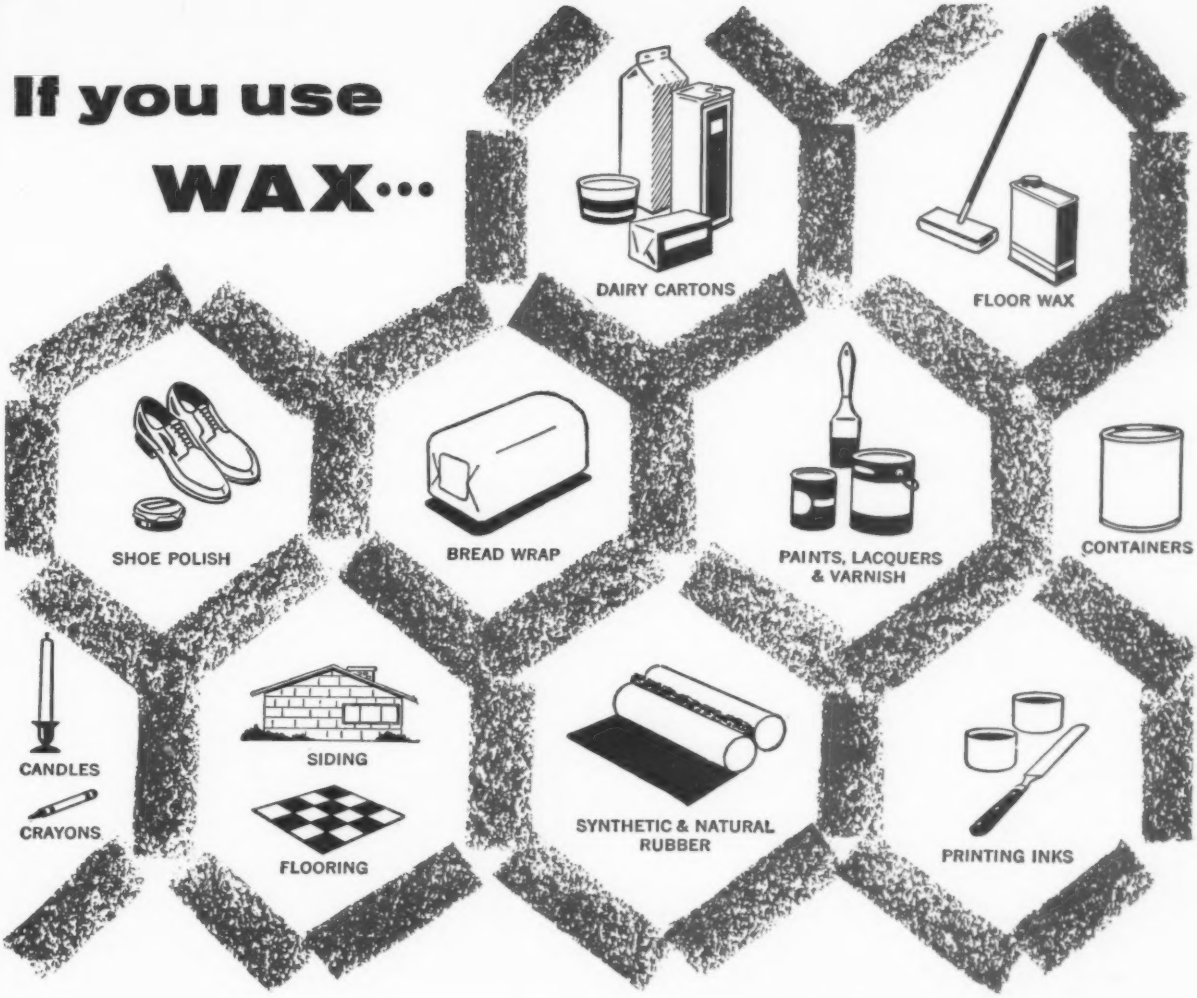
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Asphalt Tile Finish* — Renews and refinishes asphalt, rubber, linoleum and mastic floors. Seals and finishes new or old floors with one coat.

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★ **Quick-Prime*** — Fast drying oleo resinous type primer. Dries in less than two hours. Ideal for large industrial plants, mills, bakeries and schools where speed finishing is a must.

Flex Cure Seal—Rubber base penetrating sealer for use on new concrete floors to prevent dusting, staining and discoloration. Requires no etching — dries in less than an hour — one coat application.

Terrazzo Sealer* — Water white — will not discolor terrazzo. Prevents dusting, chipping and disintegration. Resists water, soap, acid and alkali.

Mastic (Asphalt)* Tile Sealer* — Seals tile against dust, dirt, grease, etc. Dries in less than an hour — will not soften tile or run the colors. Beautifies and highlights original colors.

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Gym Finish Cleaner and Polish — Solvent cleaner for removal of rubber marks and maintenance of gymnasium floors.

No. 70 Restorer* — Wax base, waterless cleaner and finish for hard floors.

No-Burn Varnish Remover — Non-inflammable remover for paints, varnishes, sealers and finishes. Heavy bodied.

Strip-Fast Stripper — Non-inflammable stripper for paints, varnishes, sealers and finishes. Especially for floors.

Triple Strength Varnish Remover — Semi-paste, inflammable remover. Quick acting. Economical.

Lightning Lustre Wax Base Soap — Combines cleaning and waxing action for all types of floors.

Asphalt Tile Cleaner and Conditioner — Detergent type cleaner for quick and thorough cleaning of all floors. Safe — economical.

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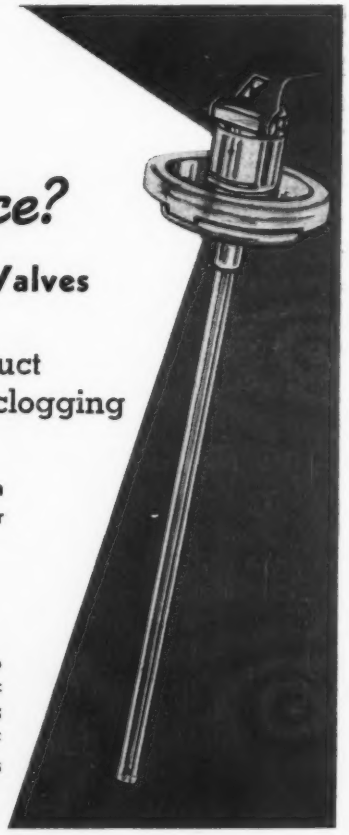
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News

Reddish in Varley Post

James Varley and Sons, Inc., St. Louis, Mo., announced last month the appointment of George



George F. Reddish

F. Reddish as consultant to its research department. Dr. Reddish is professor of microbiology and public health at the St. Louis College of Pharmacy and Allied Sciences. He was formerly chief bacteriologist for Lambert Pharmacal Co., St. Louis, now a division of Warner-Lambert Pharmaceutical Co.

After graduating with a Ph. D. from Yale University, Dr. Reddish became associate professor of bacteriology at the Medical College of Virginia, and later senior bacteriologist at the U.S. Food and Drug Administration.

Dr. Reddish has served on the scientific committee of the Disinfectant and Sanitizers Division of the Chemical Specialties Manufacturers Association and has served as the committee's chairman. He was first vice-president of CSMA and has served on the antiseptics committee of the *National Formulary* and on a similar committee of C.S.M.A.

—★—

Alco Chem. to Florida

Alco Chemicals, Inc., dealer in janitorial supplies and hotel equipment, has moved its main office to West Palm Beach, Fla., it was announced last month by Montgomery W. Chapman, president and treasurer. A branch office will be maintained at Glens Falls, N. Y., where the firm's headquarters were previously located. To begin with the firm plans to maintain a sales staff of five.

—★—

New Insect Spray Firm

The formation of a new company in Nashville, Tenn., to manufacture insect spray was announced recently. The firm, Parke Ervin Co., has acquired the formula and manufacturing rights to "Blazer Bros. Miracle Brand" spray for rug protection, developed by Blazer Bros., Nashville rug cleaning firm. Organized by Parke G. Howard, president, and Paul E. Blankenship, executive vice-president, the company is occupying a leased plant on P'Poole Ave.

—★—

Onyx Advances Molteni

The appointment of Henry A. Molteni as plant manager in charge of all plant operations was announced recently by Onyx Oil & Chemical Co., Jersey City, N. J. Mr. Molteni has been associated with Onyx since March, 1955, as assistant director of research in charge of product development and technical service.

Previously he was production manager of the fatty acid division of E. F. Drew & Co., New York. Earlier he had been associated with Corn Products Refining Co., New York.

Henry A. Molteni



—★—

Sagarin Joins VCA

Philip H. Sagarin resigned, effective Jan. 1, as vice-president



Philip H. Sagarin

in charge of manufacturing at Bruner Ritter, Inc., Bridgeport, Conn., to devote full time to his duties as president and director of VCA, Inc., Bridgeport aerosol valve firm, which he founded in 1949. Mr. Sagarin has been connected with Bruner-Ritter for the past 16 years. The name of his successor will be announced shortly by Saul Ritter, president.

—★—

"Diazinon" for Dairy Barns

Geigy Agricultural Chemicals Division of Geigy Chemical Corp., New York, announced recently that its "Diazinon" insecticides are now recommended for use in dairy barns. Residual sprays of "Diazinon" are said to control houseflies for periods up to 116 days, two or three applications giving fly control in dairy barns for an entire season. The product is said to be effective against fly strains resistant to chlorinated insecticides. Application of the residual spray does not result in milk contamination. Four pounds of 25 percent wettable powder in 25 gallons of water is required to treat an average sized barn.

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50 BOWL—Heavy duty all-around filling of stiff, tough Ox palmetto. Head—4½" x 3½". Overall—16½".

60 BOWL—Heavy duty all-around filling of stiff, tough Ox palmetto. Head—4½" x 4½". Overall—24½".

70 BOWL—All-around filling of grey tampico. Head—6¾" x 3¾". Overall—19¾".

80 BOWL—All-around filling of white tampico. Head 6¾" x 3¾". Overall—19¾".

TWISTED IN WIRE

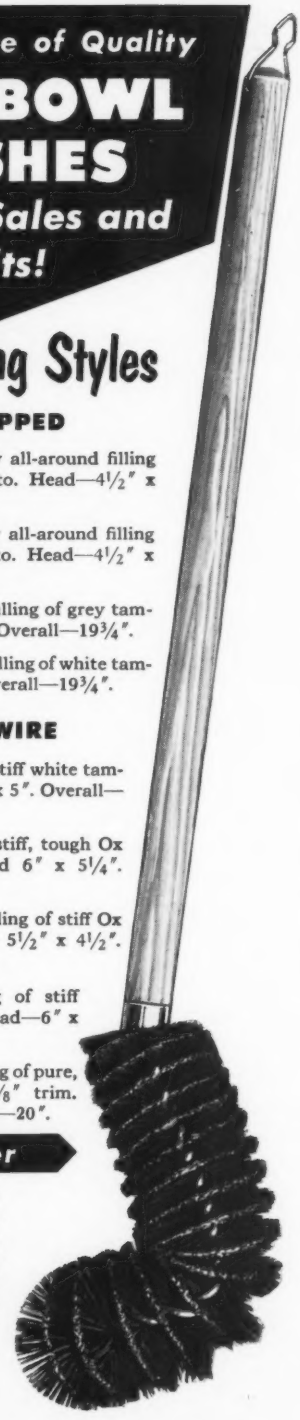
115 BOWL—Filling of stiff white tampico. 2⅛" trim. Head—6" x 5". Overall—18".

117 BOWL—Filling of stiff, tough Ox palmetto. 2¼" trim. Head 6" x 5¼". Overall—22".

129 BOWL—*Double* filling of stiff Ox palmetto. 2" trim. Head— 5½" x 4½". Overall—17½".

9700 BOWL — Filling of stiff white tampico. 2" trim. Head—6" x 4⅞". Overall—18".

2141 BED PAN—Filling of pure, sterilized black bristle. 1⅝" trim. Head—5½" x 3½". Overall—20".



Your Sales Leader

9497 BOWL—Carefully shaped for thorough cleaning. Filling of stiff, tough black SARAN for long durable service. 2⅛" trim. Head—5¾" x 3½". Overall—21".

All brushes described have smooth wood handle and hanging ring.

Order now to fill out your complete line of these NATIONALLY ADVERTISED quality brushes. Call your Oxco representative and let him show you how OXCO BOWL Brushes can lead you to more sales and bigger profits. Write for your copy of Catalog No. 53 today.

OXCO BRUSHES

OX FIBRE BRUSH COMPANY, INC.
FREDERICK — *Established 1884* — MARYLAND

Ott FMC Vice-president

Emil Ott has been appointed director of central chemical research and a vice-president of the chemical divisions of Food Machinery and Chemical Corp., New York, it was announced recently by Ernest Hart, executive vice-president. To accept this new appointment Dr. Ott resigned from Hercules Powder Co., Wilmington, Del., where he had served as director of research for the past 16 years. Born in Zuerich, Switzerland he came to the United States in 1927 and joined Stauffer Chemical Co., New York. He was on the chemistry faculty of Johns Hopkins University, Baltimore, from 1928 to 1933, when he went with Hercules as a member of the development department.

Dr. Ott will at present be located in the executive offices of the chemical divisions in New York City pending completion of the new research center for the divisions which FMC is building near Princeton, N. J.

—★—

Limit Fluoroacetate Sale

Pyrrole Chemical Corp., Portsmouth, Ohio, will sell its "Compound 1080" sodium fluoroacetate only upon receipt of a special purchase order form, it announced recently. The form stipulates that the purchaser of the highly toxic rodenticide be covered by public liabiltiy insurance covering the use of sodium fluoroacetate and that he file a certificate of such insurance with Pyrrole prior to shipments. The agreement limits the use to rodent control and precludes resale of the material. The purchaser agrees to have the rodenticide applied only by qualified operators.

SCI Medal for Davidson

Joseph G. Davidson, vice-president of Union Carbide & Carbon Corp., New York, received recently the Chemical Industry Medal for 1955, conferred upon him for "conspicuous services to applied chemistry." Presentation of the medal took place at a meeting of the American Section of the Society of Chemical Industry, sponsor of the medal, following a dinner in the medallist's honor in the Waldorf-Astoria Hotel, New York.

In accepting the medal Dr. Davidson called the growth of the petrochemicals industry in the United States "explosive." Looking back over the past 35 years in that field he recalled that sales of chemicals now included in this category amounted to 14,000,000 pounds in 1920 as against 3.2 billion pounds at the present time.

Regal to Expand

Plans for the expansion of its operation, including the building of a new 100,000 square foot plant to produce household aerosol products, and the election of new officers were announced recently by Regal Chemical Corp., Brooklyn.

As was reported in the November issue of *Soap & Chemical Specialties,* Norman Jay, formerly president of Hazel Bishop, Inc., New York, has been elected president, succeeding Theodore Heilig, who becomes chairman of the board. In addition, George Christopher, chief chemist of Regal since 1945, has been elected vice-president. Lee Heilig is secretary-treasurer.

Regal, one of the first producers of aerosols for the armed forces during World War II and later a contract filler of aerosols, is in the process of acquiring a site for a new 100,000 square foot plant, which wil be used for both contract packaging of aerosols and the production of a line of aerosol items to be sold under its own brand names. These include household chemical specialties, cosmetics and toiletries. In addition, Regal plans to build a separate, modern laboratory building of about 20,000 square feet. This will also be used for the production of pressure packed pharmaceutical items. Eventually Regal plans to erect plants in the middle west and on the West Coast.

In announcing its new executive set-up and plans for expansion, Mr. Jay predicted that the annual retail sales of aerosols would grow from their present level of about $250,000,000 to one billion dollars by 1960.

Theodore Heilig



Norman Jay



George Christopher



New CONOCO Plasticizer

Continental Oil Co., Houston, Texas, announced last month that it has placed on the market its new secondary plasticizer for use with polyvinyl chloride resins. "CONOCO H-340" is described as an almost water white liquid, specific gravity 0.865, viscosity 19.9 centipoises at 100° F, and is said to have good color and odor properties, heat and light stability, low temperature flexibility and tensile and hardness characteristics. Details are available from Conoco's petrochemical sales department in New York.

—★—

To Sell Risdon Valves

Risdon Manufacturing Co., Naugatuck, Conn., recently announced that an exclusive license has been granted Glenham Products, Ltd., Quadrex House, Park Lane, London, England, for the manufacture and sale of the complete line of Risdon aerosol dispensing valves in England. Glenham Products is one of the Hammerson Group of companies.

NEVILLE

Neville Chemicals

NEVILLE

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MODIFIED COUMARONE-INDENE
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CHEMICAL SPECIALTIES

AROMATIC SOLVENTS
for Insecticides and Herbicides

NEVSOLV 200
Boiling Range...195°C (383°F) to 230°C (535°F)
Specific Gravity....890 to .915 Color...Straw

NEVSOLV 30
Boiling Range...130°C (266°F) to 190°C (374°F)
Specific Gravity... .835 to .845 Color...Water White

These NEVSOLVS are active solvents for DDT, BHC, 2-4-D esters, and are especially clean with good odor.

Other boiling ranges are available for particular requirements.

S5-Q

Plants • Neville Island, Pa. and Anaheim, Cal.

NEVILLE CHEMICAL CO.
PITTSBURGH 25, PA.

CHEMICALS

Redd Names Edwards

The appointment of H. C. Edwards as sales manager for Redd Pest Control Co., Jackson, Miss., was announced recently. He has been associated with the company since 1946. Mr. Edwards attended Millsaps College and Oklahoma A&M. He is a veteran of World War II, and was called back to active duty during the Korean war.

—★—

West Stock Divided

A quarterly dividend of 20 cents on its common stock, payable Dec. 1, was announced recently by West Disinfecting Co., Long Island City, N. Y. This is equivalent to 30 cents on the shares outstanding prior to the 50 percent stock dividend paid on Nov. 1. It paid 25 cents quarterly on the old shares.

—★—

Sharrard Research Director

George F. Sharrard has been advanced to director of research and development by R. M. Hollingshead Corp., Camden, N. J., it was announced recently. He joined the firm early this year as manager of the technical service division. Prior to joining Hollingshead, Mr. Sharrard was assistant to the director of sales development of Charles Pfizer & Co., Brooklyn, N. Y. From 1946 to 1953 he was manager of the technical service division of Westvaco Chemical Division of Food Machinery & Chemical Corp., New York. Prior to that he was associated with Eastman Kodak Co., Rochester, N. Y.

George F. Sharrard



Webster to Waltham Paper

C. William Webster has joined Waltham Paper Products, Inc., Waltham, Mass., as assistant sales manager in charge of sanitary products, it was announced recently by Abraham Crevoshay, president. Mr. Webster had previously been eastern Massachusetts sales representative for James Bliss & Co. In his new post he supervises sales promotion and merchandising of sanitary products.

—★—

New Bobrick Warehouses

Bobrick Dispensers, Inc., Los Angeles, have established warehouses in Atlanta and Houston stocked with soap dispensers and replacement glass globes, it was announced last month by James E. Pollak, vice-president in charge of sales. For full details concering this new warehouse service communicate with Bobrick at 1839 Blake Avenue, Los Angeles 39.

—★—

Patureau in PICCO Post

The opening of a new West Coast district office in Los Angeles and the appointment of Arthur Patureau as West Coast manager were announced recently by Pennsylvania Industrial Chemical Corp., Clairton, Pa. The new office serves as sales and technical development center, supplementing the firm's extensive warehouse facilities in Los Angeles, San Francisco, and Oakland. Before joining PICCO Mr. Patureau was associated with Minneapolis-Honeywell Regulator Co., Minneapolis, and with Fischer and Porter Co., Hatboro, Pa.

Arthur Patureau



—★—

Chem. Progress Week Set

The third annual Chemical Progress Week is scheduled for April 23 through 28, 1956, it was announced recently by the Manufacturing Chemists Association, sponsor of the event. The board of directors of MCA will again serve as sponsoring committee.

Hill Advances Margoles

E. Margoles, a member of the company's sales staff for the past five years covering the Charlotte, N. C., territory, was recently appointed general sales manager of Hill Manufacturing Co., Atlanta industrial cleaner and insecticide firm. The announcement of the appointment was made by Arthur Hillman, co-owner of Hill, whose headquarters are at 1500 Jonesboro Road, S. E., Atlanta.

FOR IMPROVED FORMULATIONS

OTTASEPT

THE MODERN GERMICIDE AND FUNGICIDE

Ottasept has brought a new concept to the formulation of soaps, shampoos, detergents, hand cleaners, disinfectants and other specialties. Its germicidal and disinfectant properties make possible improved performance and greater sales possibilities for your products.

OTTASEPT Advantages Include:

- Potent and non toxic
- Easy to formulate
- Non-staining, colorless
- 100% active ingredients

Requires no license or new drug application when used externally.

OTTAWA

CHEMICAL COMPANY

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Write for full details immediately so we can advise how Ottasept will improve your products. No obligation, of course.



- **HANDSOME**—Triple plated bracket.
- **EASY FILLING**—No danger of globe breaking after refilling; fits right into place and engages thread.
- **VACUUM-FLOW CONTROL**—Sure fire, trouble-free delivery; no leaking or clogging.
- **DON'T BE FOOLED**—by ersatz imitations! Accept only the ORIGINAL, the PROVEN PEER #100 . . . the dispenser of unmatched quality and dependability for over 30 years!

Peer No. 100 is smart accessory to any lavatory—and your best possible assurance of steady soap sales.

Write for Catalog Sheet
PROMPT DELIVERY



The *ORIGINAL*
PEER #100 Dispenser

KEEP SOAP SALES FLOWING WITH THE PEER 100

MOORE BROTHERS COMPANY

101 WARREN STREET NEW YORK 7, N. Y.

QUALITY-PROVEN SOAP DISPENSERS AND DISPENSING EQUIPMENT

Now Available . . . . .

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SYNTHETIC DETERGENTS UP-TO-DATE

(Newest Revision)

64 pages listing over 1500 detergents, emulsifiers and surface active agents by trade name, manufacturers, class, type, formula and uses

price $2.00

Remittances must accompany order

AVAILABLE DIRECT FROM AUTHOR

JOHN W. McCUTCHEON

475 Fifth Avenue New York 17, N. Y.

McCarty to Onyx

George McCarty has joined the west coast sales force of Onyx Oil & Chemical Co., Jersey City,



George McCarty

N. J., it was announced in November. His headquarters will be in the firm's Los Angeles office. Prior to joining Onyx, Mr. McCarty was New York metropolitan sales agent for Synfleur Scientific Laboratories, Inc., Monticello, N. Y. He has also worked for E. S. Browning Co., in Los Angeles and San Francisco and for Carolina Aniline & Extract Co., Charlotte, N. C.

—— ★ ——

Monsanto Advances Greene

Edmund Greene has been named assistant director of the advertising department of Monsanto Chemical Co., St. Louis, Mo., it was announced in November by William R. Farrell, director of advertising. Mr. Greene had been advertising manager for the organic chemicals division since 1954. Prior to that he had been sales promotion manager for the division. With Monsanto since 1947, he had served as sales promotion and advertising manager for the former Merrimac division at Everett, Mass., until 1952. Before going with Monsanto Mr. Greene was associated with Smith, Kline & French, Inc., and with Rohm & Haas Co., both of Philadelphia.

Succeeding Mr. Greene as advertising manager for the organic chemicals division is Wilbur H. Grosse, who had served as corporate advertising manager in the central advertising department since 1954. Before joining Monsanto as a technical writer in 1947, Mr. Grosse had been a chemist at the St. Louis plant of Lever Brothers Co., New York, for four years. He was advertising manager for Monsanto's former Western and Texas divisions prior to becoming corporate advertising manager.

H. Chandler Holmes succeeds Mr. Grosse as corporate advertising manager. He had served as manager of creative services for the advertising department since 1934 and prior to that as advertising manager of the inorganic chemicals division. He joined Monsanto in 1951.

John C. Sparkman succeeds Mr. Holmes as manager of creative services. He went with Monsanto in 1952 as art and design supervisor, and was previously assistant manager of creative services.

WAXES



Importers and Refiners
CARNAUBA - OURICURY - CANDELILLA
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INDUSTRIAL WAXES
Compounds and blends made to your specifications
M. ARGÜESO & CO. INC.
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Mamaroneck 9-4746 • Cable MARGUESO
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CERITA WAXES
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Established 1908

- **HANDSOME**—Triple plated bracket.
- **EASY FILLING**—No danger of globe breaking after refilling; fits right into place and engages thread.
- **VACUUM-FLOW CONTROL**—Sure fire, trouble-free delivery; no leaking or clogging.
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Peer No. 100 is smart accessory to any lavatory—and your best possible assurance of steady soap sales.

Write for Catalog Sheet
PROMPT DELIVERY

KEEP SOAP SALES FLOWING WITH THE PEER 100



The *ORIGINAL*
PEER #100 Dispenser

MOORE BROTHERS COMPANY

101 WARREN STREET NEW YORK 7, N. Y.

QUALITY-PROVEN SOAP DISPENSERS AND DISPENSING EQUIPMENT

Now Available . . . . .

Reprints of

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64 pages listing over 1500 detergents, emulsifiers and surface active agents by trade name, manufacturers, class, type, formula and uses

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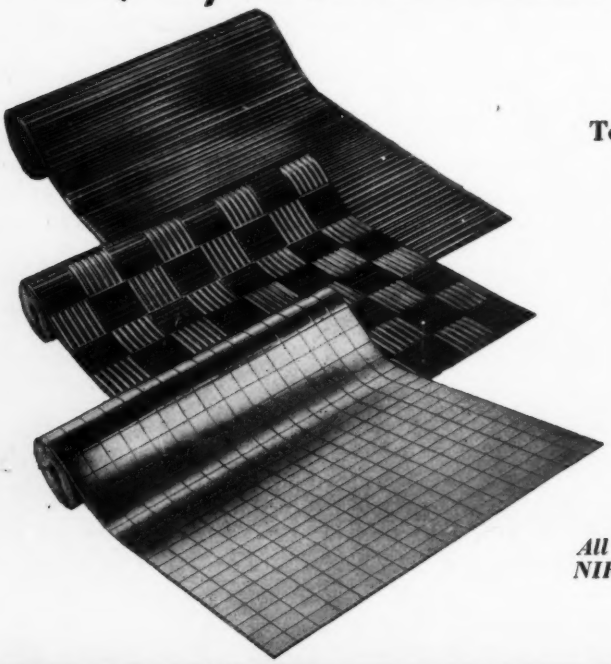
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INDUSTRIAL WAXES
Compounds and blends made to your specifications
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CERITA WAXES
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Perfection in Rubber Floor Matting

means...



To gather dirt and keep it from spreading

Result is
A cleaner place with more customers

Use
Wear Proof's 51 years' experience
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Wear Proof Mats pictured are:
Top: Cross-Rib Runner
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All styles available in Black, Red and Green. NIRU grease and chemical proof in Grey and White only.

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WEAR PROOF MAT CO. 2156 W. FULTON CHICAGO 12, ILLINOIS

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Custom Service in Oakland

Private label, formulation, packaging, and shipping of wet, dry, paste, or emulsion chemicals, detergents, disinfectants, insecticides, waxes and other specialties is being offered by Associated Sales & Supply Co., St. Louis, Mo., at its West Coast plant in Oakland, Calif. A folder is available giving details on the firm's facilities.

—★—

Multi-Clean Expansion

Ground breaking ceremonies were held last month for a new factory building annex at Multi-Clean Products, Inc., St. Paul, Minn. A single story, 50 by 114 feet structure, the new building is part of a one million dollar program to enlarge the firm's production, warehousing, and shipping facilities. When completed, the Multi-Clean plant outlay will comprise approximately 45,000 square feet of floor space. This is the seventh time in the past 12 years that Multi-Clean has enlarged its plant facilities, N. H. McRae, president, announced.

The plant now being built is an addition to the building housing the firm's vacuum cleaner assembly lines, manufacture of steel wool discs and storage. When completed the entire layout will be converted to streamlined assembly lines for both vacuum cleaners and floor machines.

N. H. McRae, president, wields the shovel, while E. V. Coulter, vice-president, handles the pick at ground breaking ceremonies recently for a new factory building annex at Multi-Clean Products, Inc., St. Paul, Minn. The construction of this building is part of a $100,000 expansion program launched by the company this year.



—★—

Griffin in Wyandotte Post

Wyandotte Chemicals Corp., Wyandotte, Mich., appointed Hugh M. Griffin as manager of its newly established public relations and communications department, it was announced last month.

New Nopco Lab Head

Charles A. Fetscher has been appointed director of the industrial general laboratory of Nopco Chemical Co., Harrison, N. J., it was announced last month. Dr. Fetscher is in charge of all research activities pertaining to the development of new products for the firm's industrial division. Before joining Nopco he was head of research for Cluett, Peabody & Co., New York.

NOW! STEEL DRUMS

15 AND 20 GALLON SIZES



These fine quality STEEL DRUMS now available with your Pail and small Drum shipments.

- Offered in 15 and 20 gallon sizes.
  (Standard specifications: 20 gauge cold rolled steel. Beautiful pearl gray finish. One ¾" and one 2" standard fitting in head.)
- Beautiful Hi-gloss, scratch-resistant, baked-on-enamel finish.
- Sturdy, dent-resistant. V-shaped Rolling Hoops.
- Deep, strong, 5-thickness Chimes.
- Rugged, fusion-welded Side Seams.
- Extra-strong, leak-proof, pressed-in Fittings.
- Well-proportioned, sturdy Drums that take the hard knocks and insure perfect product protection.



Vulcan makes all sizes and styles of Pails and Drums for Paint, Chemical, Petroleum and Food products—with all popular Pouring Spouts, Hi-bake Linings, colorful, sales-producing Lithographing.

Samples, prices and full information will be gladly furnished upon request.

Made in the "HEART O' DIXIE"

VULCAN STEEL CONTAINER CO.

Main Office and Factory

3315 North 35th Avenue • Birmingham, Alabama • (P. O. Box 786)

Sales offices and warehouse stocks in principal cities throughout the South.

NEW WAX APPLICATOR

wins customers' thanks and orders



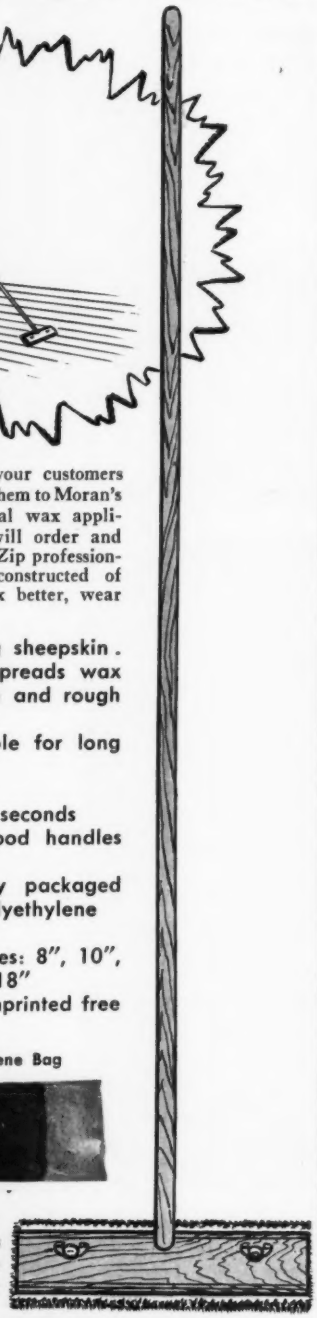
"Thank you" is what your customers will say for introducing them to Moran's Zip, the new professional wax applicator. And customers will order and reorder because Moran's Zip professional wax applicator is constructed of quality materials to wax better, wear better and last longer.

- Genuine shearling sheepskin.
- Thick, soft pile spreads wax evenly on smooth and rough floors
- Tough and durable for long life
- Resists matting
- Washes clean in seconds
- Varnished hardwood handles and blocks
- Refills protectively packaged in transparent Polyethylene bags
- Six convenient sizes: 8", 10", 12", 14", 16", 18"
- Your trademark imprinted free of charge

Protective Polyethylene Bag



Genuine Shearling Sheepskin



Win your customers' thanks and orders with the Zip, Moran's new professional wax applicator.

COMPLETE CUSTOMER SATISFACTION GUARANTEED

Write to Dept. M-12 for more information

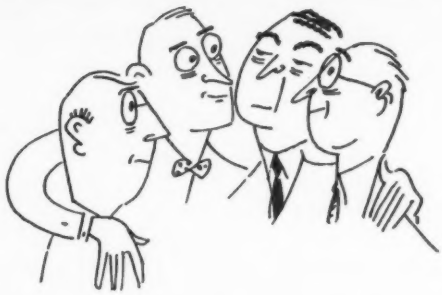
"Quality Brushes Since 1869"

MORAN BRUSH

MANUFACTURING COMPANY, INC.

30 Manilla Ave. P.O. Box 305 Hamden, Conn.

Remember, Moran gives top service as well as top quality



Foster D. Snell, Inc. Accords You Extended Services

in

MICROBIOLOGICAL

and

PHARMACEUTICAL Fields

including:

Production Control
Process and Product Development
Shelf Life and Stability Tests
Assistance in Legal Problems

Clearing Your Product with the Various Regulatory Bodies

inquire
without cost or obligation

Foster D. Snell, Inc.

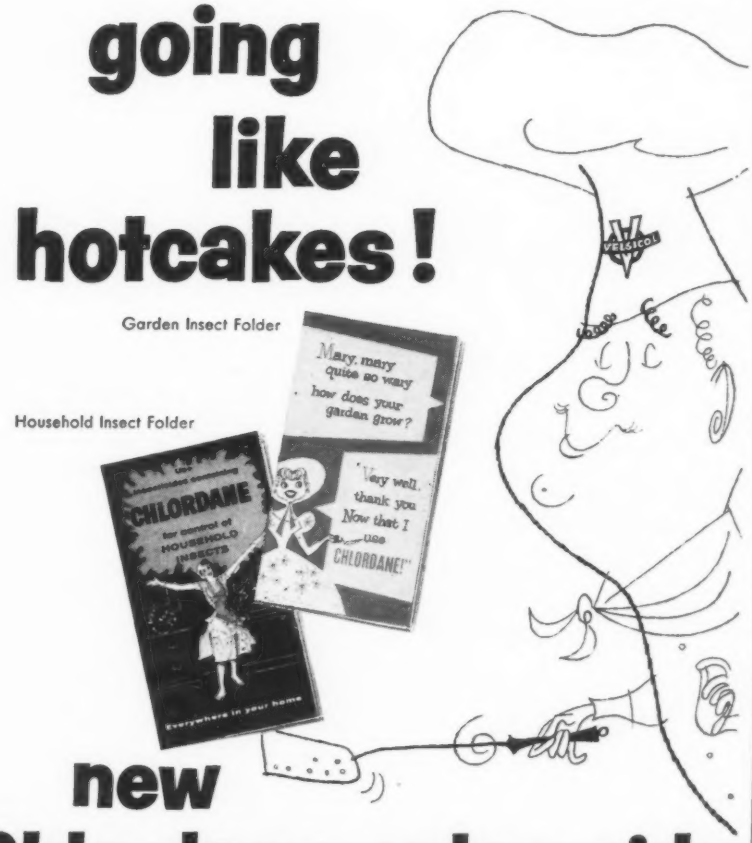
RESEARCH LABORATORIES
CHEMISTS • ENGINEERS
29 W. 15 St. New York 11, N. Y.
WA 4-8800



New Candy Containers

Candy & Co., Chicago manufacturers of waxes, cleaners and other floor maintenance chemicals, is now packaging its products in metal containers of all sizes brilliantly decorated by the silk screen printing process. First showing of these new containers was made at the recent Chicago convention of the National Paper Trade Association. All printing is done with the company's own facilities, a representative at the booth said. Retail paper stores, it was learned here, offer a considerable outlet for sanitary chemicals. Dealers carry them as a side line to supplement their main source of income. Noted among other exhibitors at this paper trade show was Frank Miller & Sons, Inc., Chicago, manufacturers of floor sweeping compounds.

going like hotcakes!



new Chlordane sales aids

Here's a combination designed to pull more sales for *you*—two bright new consumer booklets selling home applications of Chlordane:

Household Insect Folder—this 16-page, 3-color booklet gives the reader a complete program for control of household insects. Four pages of diagrams outline "Kill Zones" where control is most effective. Also included is a section dealing with specific insects —ants, cockroaches, fleas, mosquitoes, wasps, flies and others.

Garden Insect Folder—this attractive green and black booklet is the gardener's guide to insect control. In addition to exact information on formulations and applications for killing garden pests, the 12-page booklet contains a professionally prepared section called "Tips on Better Garden Care."

Write now for your free supply of these attractive folders.

VELSICOL CHEMICAL CORPORATION VELSICOL

REPRESENTATIVES IN PRINCIPAL CITIES

General Offices and Laboratories 330 East Grand Avenue, Chicago 11, Illi. is

Export Division 350 Fifth Ave., New York 1, N.Y.

Clark Pennsalt V.P.

Lee H. Clark, general manager of Sharples Chemicals Division of Pennsylvania Salt Manufacturing Co., Philadelphia, has been named vice-president of the parent company, it was announced last month by William P. Drake, president of Pennsalt. The appointment became effective Dec. 1. Mr. Clark went with Sharples Corp. in 1921 as a chemist and two years later became chief chemist. In 1929 he joined Sharples Chemicals, Inc., and became vice-president in charge of production. In 1950 he was advanced to the position of executive vice-president and became president of the Sharples Chemical organization in 1954. When this Pennsalt subsidiary was dissolved and integrated as an operating division of the company, Mr. Clark continued to direct its activities as general manager. In addition, he has been serving as president of Index Chemical Co., another Pennsalt subsidiary.

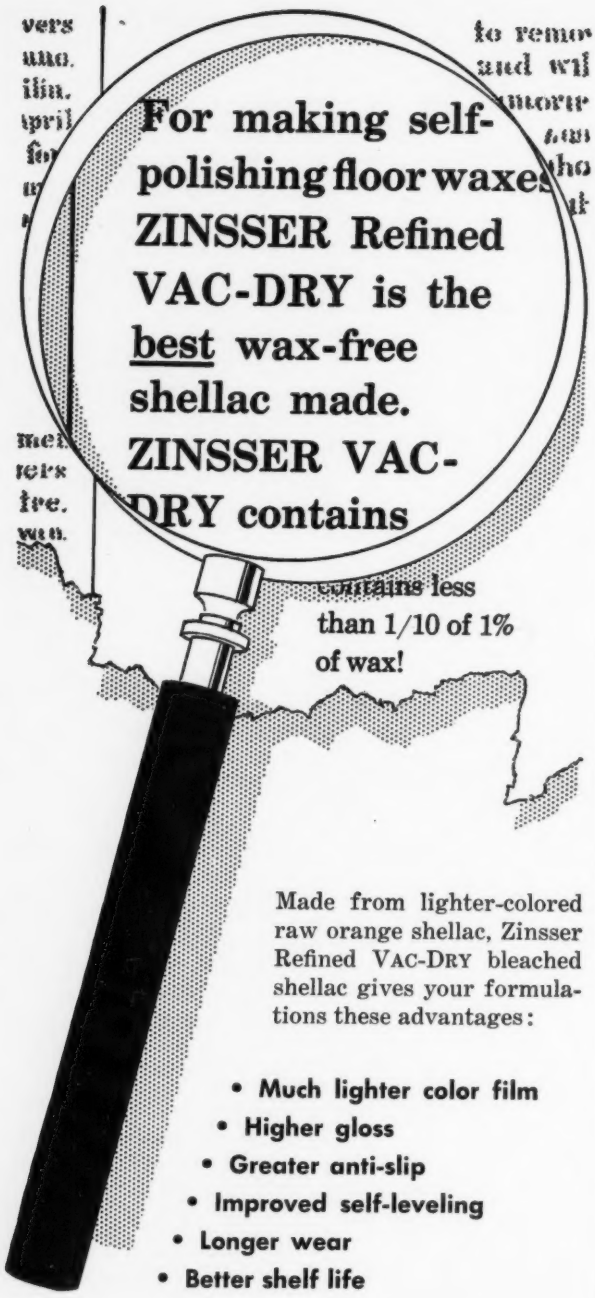
—★—

Johnson Advances Berman

Leslie Berman has been appointed Boston district sales manager for household products, it was announced recently by S. C. Johnson & Son, Inc., Racine, Wis. The district includes the states of Massachusetts, Vermont, New Hampshire, Maine, and Rhode Island. Mr. Berman joined the wax firm in 1939 as a salesman, was area manager in the New York sales district prior to his recent advancement.

Leslie Berman





Made from lighter-colored raw orange shellac, Zinsser Refined VAC-DRY bleached shellac gives your formulations these advantages:

- Much lighter color film
- Higher gloss
- Greater anti-slip
- Improved self-leveling
- Longer wear
- Better shelf life

Low acid value. Takes *less* alkali to go into solution for *greater* water resistance. Dissolves readily. Makes unusually stable aqueous solutions.

Get the full details and generous test sample by writing on your company letterhead to

WILLIAM ZINSSER & CO.

offices and factories at

516 W. 59th St.
New York 19, N. Y.

319-323 N. Western Ave.
Chicago 12, Ill.

HARCHEM®
CENTURY BRAND

NOW THE KEY TO UNIFORM QUALITY IN

Fatty Acids

Harchem **CENTURY BRAND** Fatty Acids are the key to quality in your products. Look for the Harchem Key. It now identifies the oldest name in Fatty Acids.

STEARIC ACID
OLEIC ACID
HYDROGENATED FATTY ACIDS
TALLOW FATTY ACIDS
VEGETABLE FATTY ACIDS
HYDROGENATED GLYCERIDES
HYDROGENATED CASTOR OIL
12 HYDROXY STEARIC ACID

H-7-A

HARCHEM DIVISION
WALLACE & TIERNAN, INC.

SUCCESSOR TO: W. C. HARDESTY CO., INC.
25 MAIN STREET, BELLEVILLE 9, NEW JERSEY

Reilly Advances Posen

Appointment of George Posen as district sales manager in the Cleveland area for Reilly Tar &



George Posen

Chemical Corp., Indianapolis, was announced last month by Peter C. Reilly, vice-president. For six years preceding his advancement Mr. Posen was a salesman in the Cleveland district. In his new post he will make his headquarters at the Reilly office at 20106 Kinsman Road, Warrenville branch.

—★—

Lazarus Dallas Branch

Lazarus Laboratories, Inc., Buffalo, N. Y., wholly owned subsidiary of West Disinfecting Co., Long Island City, N. Y., will establish its first division in the southwest in Dallas, Tex. The firm, which manufactures and distributes disinfectants for the dairy industry, will house its new division in the West plant at 5416 Maple St., Dallas.

—★—

Joins Lehn & Fink Board

James M. Boohecker, general manager of Dorothy Gray, Ltd., New York, has been named to the board of directors of Lehn & Fink Products Corp., Bloomfield, N. J., it was announced last month by Edward Plaut, president and chairman of Lehn & Fink, at the annual stockholders meeting.

Dorothy Gray, a cosmetic firm, is one of the three major subsidiaries of Lehn & Fink.

Mr. Boohecker became general manager of Dorothy Gray a year ago, after 19 years with the company. He joined the firm's sales department in 1936 and was named sales manager in 1943. He is a graduate of Mercersburg Academy and of the 1925 class at Princeton, where he majored in economics.

—★—

Turpentine Reodorant

The development of a new chemical-counteractive oxidant for the elimination, by chemical means, of odors in crude sulfate turpentine that are traceable to organic sulfur compounds was announced recently by Rhodia, Inc., New York. The new line is known as "Alamask" OTA and "Alamask" OTB. Aplication is made in a two stage reaction, using .01 percent of both products. In some cases air may be substituted if immediate chemical reaction is not needed, in which case the concentration required would be .001 percent.

—★—

Guardian Moves, Expands

Guardian Chemical Corp. has moved to new and larger quarters at 38-15-30th Street, Long Island City, N.Y., it was announced last month by Alfred R. Globus, president. The new two story plant will add greatly to the firm's production capacity. Guardian retains its old plant as a warehouse.

—★—

Methyl Parathion Data

Monsanto Chemical Co., St. Louis, Mo., recently published a bulletin giving technical information on methyl parathion. The product is described and details are given on applications, residue tolerances, and precautions for handling the insecticide. Technical Bulletin No. 0-55 is available from Monsanto's organic chemicals division.

—★—

Warfarin Reprints

Wisconsin Alumni Research Foundation, Madison, Wis., is mailing to formulators reprints of rodent control articles featuring warfarin. Currently reprints of five different articles are available, which have appeared in farm papers in fall of 1955.

Gibbs Joins Magee

Charles Gibbs, sales manager of Majestic Wax Co., Denver, has joined Magee Chemical Co.,



Charles Gibbs

Bensenville, Ill., as division manager, while retaining his Majestic post, it was announced recently. The Denver firm makes "Velva Sheen" mop dressing, while Magee is a private label manufacturer of sealers and other floor products. Daniel Papp, Cleveland representative of Majestic Wax, and John Mrotz, the firm's Chicago representative, will participate in the combined program in the central, east and central west divisions, respectively.

"Velva Sheen" will continue to sell as a nationally advertised brand while Magee products will be offered on a private label basis, as before.

—★—

Runcie Witco P. A.

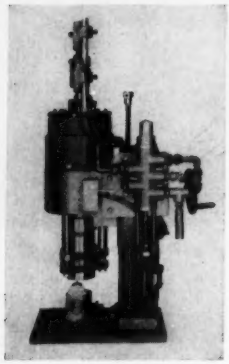
Earle T. Runcie has been appointed director of purchases for Witco Chemical Co., New York, it was announced recently by Max A. Minnig, executive vice-president. In his new position Mr. Runcie is responsible for company-wide purchasing policies and the supervision of all plant purchasing personnel.

He comes to this post from Continental Carbon Co., a Witco affiliate, where he was special assistant to the executive vice-president and manager of oil and gas divisions. Mr. Runcie was graduated from Purdue University in 1940 as a mechanical engineer.

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Peterson in Production

Peterson Filling and Packaging Co., Danville, Ill., is now in production, it was announced last



H. Peterson



R. Peterson

month by Harry E. Peterson, president of the newly organized firm. The company is engaged in contract and custom filling and packaging of all types of containers with particular emphasis on pressure packaging. The 50,000 square feet plant formerly owned by Hegeler Zinc Co., has been renovated and equipped for its new use.

Harry E. Peterson left Continental Filling Corp., Danville,



E. C. Hegeler



J. Hegeler

where he had been president since 1952, to organize the new venture. He had joined Continental filling in 1947 as vice-president and general manager. From 1938 to 1947 he had served as section chief of the research department of Continental Can Co. in Chicago.

Robert J. Peterson, Harry's brother, sales manager of Continental since 1947, is vice-president of Peterson Filling. He was employed in the manufacturing research division of Continental Can from 1941 to 1947.



J. Shea



M. Johnsen

Edward C. Hegeler and Julius W. Hegeler are secretary and treasurer respectively of the new firm. Montfort A. Johnsen, Peterson's director of research, had been supervisor of research with Continental since 1953. John K. Shea, on the sales staff of Peterson Filling, held a similar position at Continental Filling since 1953.

—★—

R & H Infringement Suit

A patent infringement suit was filed on recently by Rohm & Haas Co., Philadelphia, against Chemical Insecticide Corp. and United States Fungi, Inc., both of Brooklyn, and Joseph Lamberta, distributor of agricultural chemicals and agent for the two companies in Smyrna, Del. The suit, filed Sept. 26, in the U. S. District Court at Wilmington, Del., charges infringement of U. S. reissue patent 23,742 under which Rohm & Haas sells its "Dithane" brand fungicide. The suit charges the three defendents with direct infringement, with actively inducing others to infringe, and with contributory infringement through its sale of salts of ethylene bisdithiocarbamic acid knowing they have no commercial use outside the patent claims.

This action follows the filing by Rohm & Haas, several months ago, of infringement suits on the same patent against E-Z Flo Chemical Co. of Lansing, Mich., and its affiliate, Diamond Fertilizer Co., of Sandusky, O., and also against Roberts Chemicals, Inc. of Nitro, W. Va.

—★—

Carbide Plant for Scotland

Construction of a polyethylene plastics plant near Grangemouth, Scotland, is planned by Union Carbide and Carbon Corp., New York. The plant will be operated by Gemec Chemicals Co., a subsidiary of Union Carbide Ltd., and will have an annual production capacity of 26 million pounds.

Shepherd Names Execs.

H. R. Shepherd, president and founder of Aerosol Techniques, Inc., Bridgeport, Conn., has an-



H. R. Shepherd



N. G. Smith

nounced a number of executive appointments in the new organization.

Walter Feldesmann, vice-president and general counsel, served formerly in the Judge Advocate General's Office of the U.S. Army. He is on the board and serves as general counsel of several important corporations.

Harold Westheimer of Westheimer & Fine, has been named auditor. Before entering the public accounting field through his own firms, he was associated with S. D. Leidesdorf & Co., New York.

Norbert G. Smith has been named director of manufacturing and research. A graduate in chemical engineering from Villanova College, he was until recently chief chemist at Connecticut Chemical Research Corp. Chief chemist under Mr. Smith's leadership will be Peter Sgaramella, who studied organic chemistry at the University of Bari in Italy.

Representing Aerosol Techniques as district sales manager will be Donald McMurray, who has been a member of the purchasing department of Helena Rubinstein, Inc., New York, and Warner-



D. McMurray



Ethel Walsh

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Hudnut, New York, respectively.

Ethel Walsh, previously connected with Propel Chemicals, Inc., New York, has been appointed sales manager and administrative assistant to the president.

Mr. Shepherd, co-founder and former vice-president of Connecticut Chemical Research Corp., Bridgeport, resigned from that organization on Sept. 30 to form his own corporation. Prior to his association with Connecticut Chemical Research he was with Bridgeport Brass Co. when it pioneered high-pressure aerosol packaging. Mr. Shepherd is chairman of the Aerosol Division of the Chemical Specialties Manufacturing Association and has sat on many of the group's committees dealing with the problems of the aerosol industry.

Aerosol Techniques starts operations in December and expects to be in full production by Jan. 1, 1956.

—★—

Mueller Joins Carbide

John D. Mueller recently joined the agricultural chemicals sales department of Carbide and Carbon Chemical Co., a division of Union Carbide and Carbon Corp., New York, it was announced recently by Dr. R. H. Wellman, manager of the department. Mr. Mueller received his B.S. degree in agronomy from Washington State College in June, 1955. He has also done special agricultural chemical development work at Boyce-Thompson Institute for Plant Research, Yonkers, N. Y.

—★—

New Line of Brushes

Ox Fibre Brush Co., Frederick, Maryland, recently introduced a new line of matching brushes featuring yellow, blue and pink molded styrene handles. Impact resistance and long wearing qualities are claimed for these handles which feature grooves on either side to ensure firm grip, and a hanging hole to eliminate the use of hanging rings. Handles come in a range of sizes for different brushes.

Heptachlor Labels Passed

Velsicol Chemical Corp., Chicago, announced recently that the U.S. Department of Agriculture has granted four new label acceptances for heptachlor wettable powder formulations. Detailed information may be obtained from Velsicol at 330 East Grand Avenue, Chicago 11.

—★—

ISMA Expansion Plans

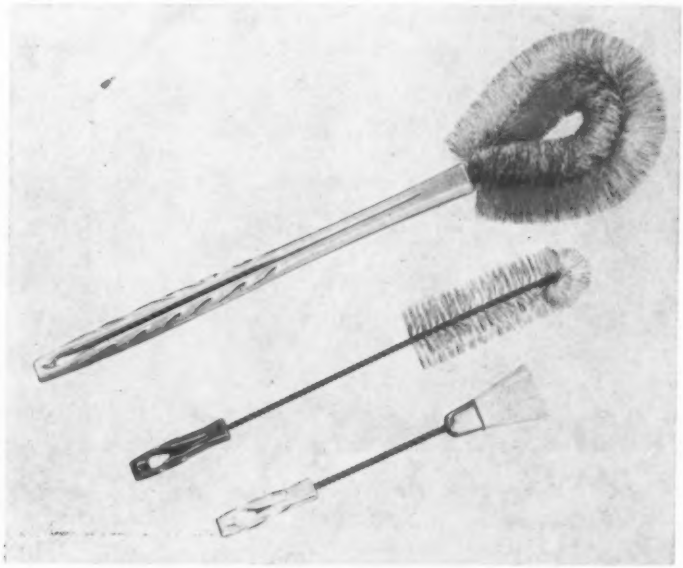
The Industrial Sanitation Management Association is currently forming new chapters in Buffalo and Rochester, N. Y.; Philadelphia; South Bend, Ind.; Detroit; Chicago; and Los Angeles. The organization, founded in 1951, met on November 15 at the Governor Clinton Hotel, New York, and completed plans for a nationwide expansion drive. Among those who will be invited to join the group are sanitarians, executive housekeepers, building managers, industrial hygienists, and safety engineers; The following serve as officers of ISMA: Sydney Brierley, Eastman Kodak Co., Rochester, N. Y., president; Daniel Granato, Sharp & Dohme, Inc., Philadelphia, vice-president; E. D. Ingalls, Hoffmann-LaRoche Inc., Nutley, N. J., treasurer; and John Powell, *Modern Sanitation*, New York, sec'y.

Zonite Sales Rise

Zonite Products Corp., New Brunswick, N. J., for the nine months to Sept. 30, increased its sales to $6,207,088, as against $5,996 763 for the nine months for the previous year. The company also reduced i.s net loss from $162,766, for 1954, to $63,560 for the nine months of 1955. In the quarter ended Sept. 30, last, Zonite's sales were $2,193,980; net income was $62,732, and share earnings were six cents. For the third quarter a year earlier, the company's sales were $2,210,321, with net income of $86,419, and share earnings of eight cents. The figures for 1955 include operations of Crookes Laboratories since Aug. 1.

A change in the name of the company was voted on by stockholders at a special meeting Nov. 3 The new name will be Chemway Corp., it was announced by Charles T. Silloway, president. Also announced was a corporate reorganization in which the firm will comprise four separately functioning divisions: Zonite Division, for proprietary drugs; Larvex Division, for household products; Crookes Laboratories (including A. C. Barnes Products) for ethical pharmaceuticals, and Lady Esther Division, for cosmetics and toiletries.

New line of matching brushes feature yellow, blue and pink styrene plastic handles announced recently by Ox Fibre Brush Co., Frederick, Md.



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Cairns Succeeds Ott

Robert W. Cairns has been appointed director of research for Hercules Powder Co., Wilmington, Del., it was announced last month. Assistant director of the research department since 1945, he succeeds Dr. Emil Ott, who resigned last month to join Food Machinery and Chemical Corp., New York.

Dr. Cairns has been with Hercules since 1934 when he joined the firm as a research chemist at its experiment station near Wilmington. In 1953 he had one year's leave of absence to serve as deputy assistant secretary of defense for research and development. In 1940 he was named assistant to the director of research and a year later he became director of the experiment station. During the war he headed the development department of the Hercules operated Radford Ordnance Works in Radford, Va. When the company's research planning committee was organized about two years ago, Dr. Cairns was chosen to be chairman of the group. He holds a B.A. degree from Oberlin College and a Ph.D. from Johns Hopkins University. Before going to Hercules he was a fellow at the Bartol Research Foundation, Swarthmore, Pa.

—★—

Conn. Chemical to Expand

Expansion plans of Connecticut Chemical Research Corp., Bridgeport, Conn., were outlined last month by A. O. Samuels. Four subdivisions are being created in the research and development department: one covering cosmetic toiletries and related products, another pesticides, industrial products, and miscellaneous items, a third foods, and a fourth pharmaceuticals, drugs, etc. New manufacturing facilities on the West Coast and the addition of three foreign plants are scheduled within the next 12 months, Mr. Samuels said. Expansion of the firm's Canadian affiliate in Toronto is being planned and Midland Aerosols, Ltd., Connecticut's British affiliate, is now in full operation in Wolverhampton, it was announced.

Installation during recent months of additional production lines at the main factory in Bridgeport has stepped up capacity to more than 250,000 units.

"Raid Bug Killer," first insecticide and first aerosol product of S. C. Johnson & Son, Inc., Racine, Wis. Product has been undergoing market tests this year, will probably go national next. Johnson is also reported ready to test an aerosol moth proofer, a Raid liquid insect spray and a companion roach and ant killer.



Calspray District Managers

Appointments of three new district managers for California Spray-Chemical Corp., Richmond, Calif., were announced last month by H. J. Grady, vice-president and regional manager—East, marketing department.

New district manager of the Mississippi Delta area is Cecil M. Crutchfield. With Calspray for nine years he was branch manager in Alabama prior to his recent advancement. From his office in Troy, Ala., he now supervises operations in Alabama, Mississippi, and the adjacent parts of Arkansas, Florida, and Tennessee. Mr. Crutchfield succeeds James P. Toffaleti who now becomes manager of the south central district. His office is in Shreveport, La., and he is responsible for operations in Louisiana, Oklahoma, most of Texas, and adjacent parts of Arkansas, and New Mexico. Mr. Toffaleti also has been with Calspray for the past nine years.

Earl Lanier Stripling, Jr., has been named district manager for the southeast with offices in Goldsboro, N. C., supervising Georgia, South Carolina, and part of North Carolina. He joined Calspray six years ago and was branch manager for Florida, Cuba, and Puerto Rico, prior to this appointment.

—★—

A.R.C. Nylon Valves

Aerosol Research Co., Forest Park, Ill., introduced recently its new line of "Nylon K-38" valves. Suitable for spray or foam aerosols in metal or glass containers, these nylon valves are claimed to have great versatility.

CSMA Meeting Program

(*From Page* 175)

Harrison, B. F. Goodrich Co., Watertown, Mass.
b. Cleaning and Maintaining of Rubber Flooring," by Merrill M. Smith, American Biltrite Rubber Co., Trenton, N.J.
c. "Cleaning Floor Coverings," by Walter F. Weget, Wyandotte Chemicals Corp., Wyandotte, Mich.
d. "Preparation and Maintenance of Floors for Waxing," by Adrien S. duBois, West Disinfecting Co., Long Island City, N.Y.
e. "Industrial Floor Coatings," by Gerard R. DeNapoli, technical director, Masury-Young Co., Boston.
f. "Floor Maintenance Problems in the Home," by Fred C. Kraatz, S. C. Johnson & Son, Inc., Racine, Wis.
g. "Commercial Maintenance of Floors," by Roy Varner, Penn Mutual Life Insurance Co.

Wednesday Evening, Dec. 7

6:00 P.M. Cocktail party—Ball Room Foyer.

7:30 P.M. Informal Banquet and entertainment—Grand Ball Room.

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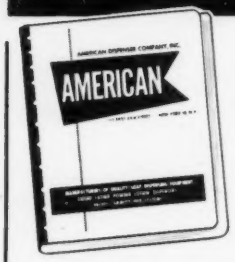
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FMC Research Center

A central research laboratory will be built in the Princeton, N. J., area by the chemical divisions of Food Machinery and Chemical Corp., New York. The 32½ acre site was part of the property of Walker-Gordon Laboratory Co., and was originally planned as a site for diversified research centers. It is adjacent to the James Forrestal Research Laboratories of Princeton University. The new laboratories with an extensive library and auxiliary facilities will be housed in an air-conditioned 45,000 square foot building, scheduled for completion by next July. The center will be staffed by 150 people.

FMC Chemical Divisions include Becco Chemical, Fairfield Chemical, Niagara Chemical, Ohio-Apex, Westvaco Chlor-Alkali, and Westvaco Mineral Products. These divisions accounted for 44 percent of the corporation's income of 233 million dollars in 1954.

Seven chemical research laboratories are currently being maintained as part of the individual divisional structures. The status of these laboratories will remain unchanged. The new central laboratory will concentrate primarily on long-range chemical research on behalf of the FMC chemical divisions as a whole.

Petro-Tex Chemical Corp., jointly and equally owned by FMC and Tennessee Gas Transmission Co., will occupy a section of the new laboratory for research on petrochemicals.

—★—

VCA Metered Valve

A measured spray is dispensed by the latest valve placed on the market by VCA, Inc., Bridgeport, Conn. The "Emson" metered spray valve can be used on glass, aluminum, and one inch opening standard containers. The device is covered by U.S. patent No. 2,721,010.

New Atlas Research Set-Up

Atlas Powder Co., Wilmington, Del., has made basic changes in organization and staff of its chemical research and development, it was announced recently by Edward J. Goett, vice-president in charge of the chemicals division.

The realigned organization consists of three groups: a chemical research department, concerned with long-range projects under the direction of Walter H. C. Ruggeberg, formerly director of organic research and development for Tennessee Corp., Atlanta; a chemical engineering department, responsible for all commercial production studies and headed by Marshall T. Sanders, with Atlas since 1917; and a product development department which will undertake market application and customer service work under the direction of F. Faxon Ogden, who joined Atlas in September after 20 years with Monsanto Chemical Co., St. Louis, Mo.;

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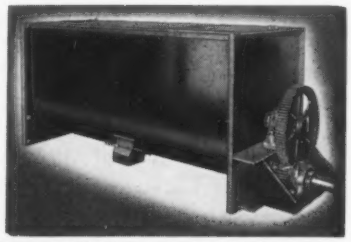
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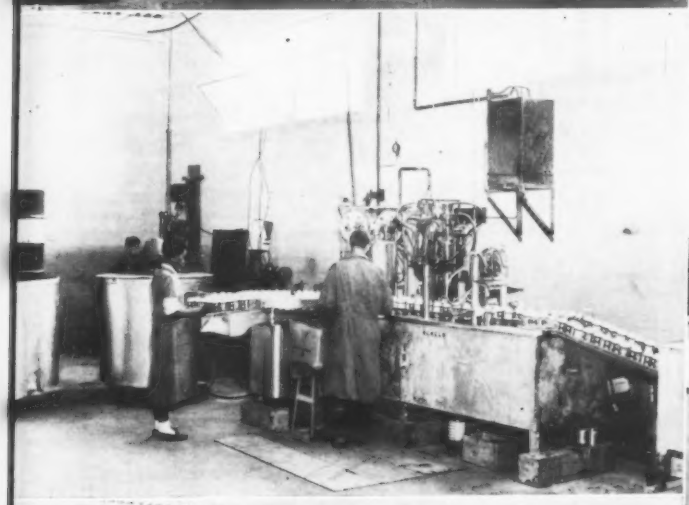
Price $7.25 in U. S. A.; $7.75 elsewhere.

(New York City—add 3% Sales Tax)















Plasti-Kote Opens New Plant

One of the most modern plants in the aerosol industry was opened recently by Plasti-Kote, Inc., 9801 Harvard Ave., Cleveland. The new $300,000 plant incorporates many new techniques, including automation, in the production of the company's line of spray paints and specialty items.

The 24,000 feet of plant space is divided between manufacturing and warehouse operations. A feature is a 100,000 pound storage tank for propellants.

Ultra modern offices are included in the new plant, which also houses expanded laboratory and research facilities which can handle pilot runs of new items. Trucks and railroad cars can be loaded at the same time from the plant. Two modern aerosol filling lines package all "Plasti-Kote" consumer and industrial items. A new machine has been developed to place agitator balls in cans as they pass along the conveyor line.

The industrial division of the company is now supplying touch-up enamels and lacquers carrying manufacturers' own labels. Facilities for custom packaging have been increased 50 percent in the new plant.

Herbert Fine is president of the firm.



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Pressure Determination Apparatus

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CSMA Committee Specifications

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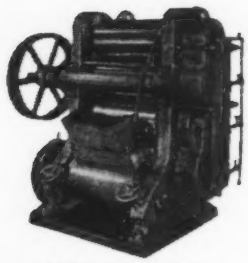
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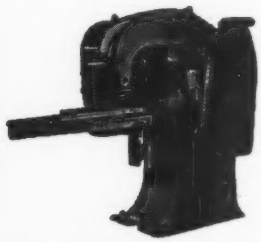
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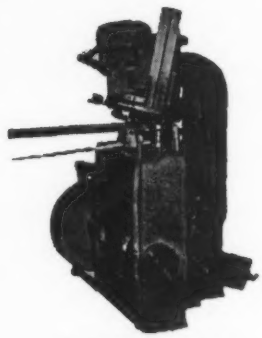
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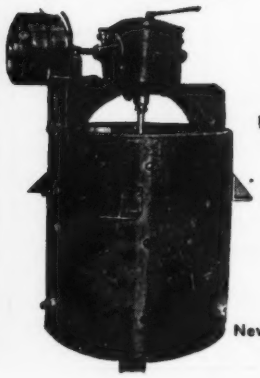


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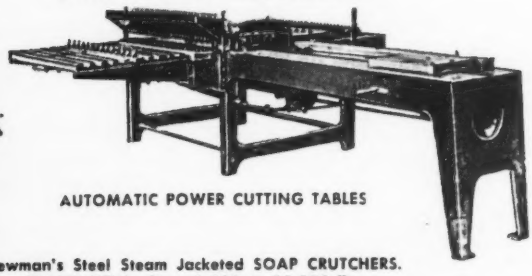
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(*Turn to Page* 265)

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See page 270

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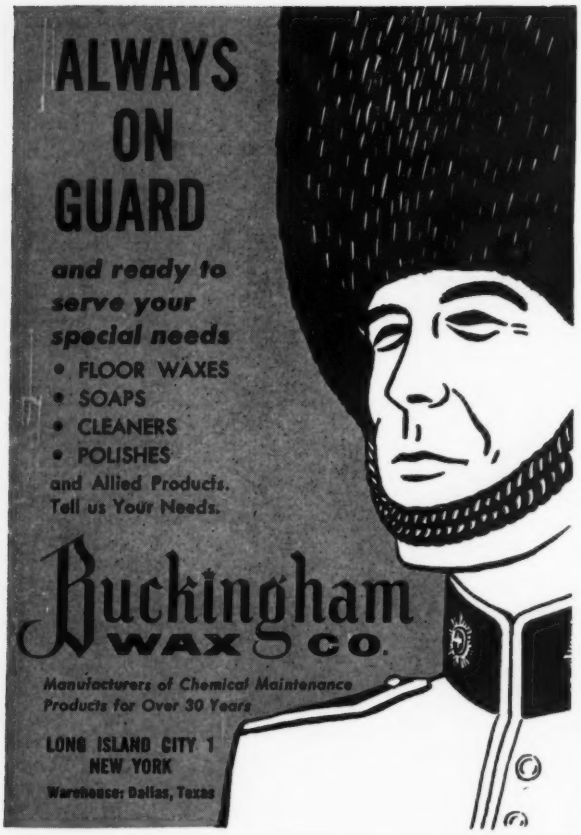
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As Reader Sees It

(*From Page* 45)

name of his firm and plans to run a full page newspaper advertisement telling the world of this change. Our share? $20.

We get off easy here. Our net profit on this fellow for 1955 (so far) comes to a spanking $26.50.

Naturally, we do everything we believe reasonable to help jobbers with their catalogs and advertising programs. We imprint small envelope stuffers for them free of charge. We gladly give them cuts, retouched photographs, etc. As a matter of fact we will even make up layouts and write copy for whatever different types of our products they plan to feature in their catalogs.

We would be interested in knowing if you have received similar comments on the subject from other manufacturers selling sanitary supply distributors.

Our problem is precisely this: Where should the line be drawn on such "donations?"

ANONYMOUS.

Obviously, we have withheld the name of this manufacturer, who is well known as a generous and loyal supporter of the sanitary supply industry and its trade association. We have heard similar, in fact identical, comments from many other manufacturers whose products are sold by sanitary supply distributors. In summary, they say "jobbers expect too much as we stated editorially in our July issue, if jobbers persist in asking for so many "extras," manufacturers will be forced to raise their prices to jobbers. Ed.

—★—

"Nervanaid" for EDTA

Editor:

Our attention has been drawn to an error in Dr. Kertess' article ("Detergents in Britain") on page 38 of the August, 1955 issue of *Soap & Chemical Specialties.*

The trade name "Nervanaid" is used solely for sequestering agents of the ethylene diamine tetra acetic acid and related types and is never used for detergents and wetting agents. Our trade names for surfactants are:

"Effesay" for sulphated fatty alcohols

"Nervan" for alkyl aryl sulphonates

"Anonaid" chiefly for the sulfosuccinate types

"Nonaid" for the alkylolamide types

while the polyglycol esters we sell under their chemical names.

Your readers might be interested in a correction on this point.

R. L. SMITH,
Works manager,
Norman Evans & Rais, Ltd.
Stockport, England

—★—

Thanks from France

Editor:

Having just returned to France, I wish to send you a sincere note of thanks for the friendly and kind manner in which you welcomed me as a member of the European soap mission to the United States this past summer, under the direction of Mr. Samuel Stovall of the Department of Commerce.

I am deeply appreciative of the very interesting account of soap marketing in the U. S., which you delivered before our group. I am confident this and the other information we gathered on the trip will be profitable to us in the future.

I strongly hope that if you have the opportunity to come to France one of these days you will let me know so that I shall have a chance of repaying the hearty welcome you offered me.

A. PRUVOST,
Managing Director,
Al'ancienne
Vitry-sur-Seine, France

—★—

New Oil Absorbent

An oil, grease and water absorbent for use on a wide variety of floor surfaces was introduced last month by Quaker Supreme Chemical Co., Montgomery, Ala. "Rapid-Dri" is said to be highly absorbent, fire proof, and slip proof. It is effective in the presence ot regular or soluble oils.



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Coming Meetings

Association of American Soap & Glycerine Producers, Inc., 29th annual meeting, Waldorf-Astoria Hotel, New York, Jan. 25-27, 1956.

Chemical Specialties Manufacturers Association, 42nd annual meeting, Roosevelt Hotel, New York, Dec. 5-7. 42nd mid-year meeting, Drake Hotel, Chicago, May 20-22, 1956.

Entomological Society of America, annual meeting, Netherlands Plaza Hotel, Cincinnati, Nov. 29-Dec. 2.

Exposition of Chemical Industries, Commercial Museum and Convention Hall, Philadelphia, Pa., Dec. 5-9.

National Association of Retail Grocers, Los Angeles, June 10-14, 1956.

National Chemical Exposition, Public Auditorium, Cleveland, Nov. 27-30.

National Packaging Exposition of the American Management Association, Convention Hall, Atlantic City, N. J., Apr. 9-12, 1956.

National Sanitary Supply Assn., 33rd annual convention and trade show, Conrad Hilton Hotel, Chicago, Apr. 29, 30 and May 1, 2, 1956.

Plant Maintenance Show, Convention Hall, Philadelphia, Jan. 23-26, 1956.

Society of Cosmetic Chemists, 10th anniversary meeting, Commodore Hotel, New York, Dec. 15.

Supermarket Institute, mid-year meeting, Palm Springs, Calif., Jan. 8-12, 1956, annual convention, Cleveland, May 6-3, 1956.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meetings Commodore Hotel, New York, Jan. 11, Feb. 8.

Toilet Goods Association, Scientific Section, midwinter meeting, Waldorf-Astoria Hotel, New York, Dec. 14.

Weed Society of America, first annual meeting, New Yorker Hotel, New York, Jan. 4-6, 1956.

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Tale Ends

SAVED by a rock! Uncle Sam Chemical in N. Y., according to its prez, Herman Schwartz, has been saved from evacuating its present factory on 131st St. by a big rock adjacent to the plant. It seems that Herman got the heave-ho to move out as his place had been condemned as land needed for a large housing project, Knickerbocker Village. But when the builders found it would cost several hundred thousand dollars just to clear off the rock next to Herman's spot, they relented. Twenty odd city blocks are to be razed, but Uncle Sam Chemical will remain triumphant in the midst of the development.

* * *

Shades of Robin Hood! Jim Lawton of T. F. Washburn, they tell us, is an archer, — that is he shoots arrows from a bow, — of no mean proportions. Kills deer and all that stuff with bow and arrow. Our informant says that Jim can put an arrow through the eye of a needle when he wants to. Also they say that he saves Indian relics. Queer duck!

* * *

A list of 50 "Unexpected Uses for Soap and Suds" has just been sent out by the Cleanliness Bureau which is Ruth Goldberg's baby at the Assn. of American Soap & Glycerine Producers, otherwise known as the Soap Assn. To make drawers and windows slide more easily, to train unruly eyebrows, to prevent candles from smoking, to keep buttonholes from fraying, to pick up broken glass, to keep bottle caps from sticking, to stop hinges from squeaking, to keep knee socks from slipping, to prevent bathroom mirror from steaming, to decorate glass for a party, to lubricate stubborn zippers, — these and enough more to add to fifty make up the list.

* * *

Offering a new synthetic bath and beauty bar, a well known soaper used a perfumed advertisement in a large mid-west daily recently. The advertising created quite a sensation, not only among consumers but among other soap peddlers. This new bar was heralded as so mild that there is "no soap sting to eyes, not even a baby's." So, you blokes who put out soap that stings peoples' eyes had better watch out.

* * *

Although women still select and buy the products for home dishwashing, the man of the house has become an expert in their use, says Craig Davidson, v.p. of Purex Corp. Then, he adds that men do dishes faster than women and are wizards in washing pots and pans. If true, we think that something should be done about this. It should be kept a secret so other wives will not find it out, or Craig Davidson should be bounced out of the Husbands Protective League. Imagine making a thing like this public.

* * *

Just 86 years ago, Dr. Thomas Welch, a dentist, made the first grape juice in the family kitchen at Vineland, N. J., says Dolge's house organ, "The Clean-Up." It goes on to tell the history of Welchs and how the son, Dr. Charles Welch moved the factory to Westfield, N. Y. in 1897. But the Dolge folks left out one important detail, — why Dr. Welch started making grape juice. He was a teetotaler and an enemy of strong drink. He wanted a liquid to use for church communions in place of wine.

* * *

Miss America is attending the annual CSMA meeting in New York this year. The 18 year old Sharon Ritchie of Denver is guest of honor, or something like that, at the Fluid Chemical open house party in connection with the convention on December 6. Miss America doesn't know much about aerosol filling or contract packaging, but she's going to be hostess at the Fluid party nevertheless. If you read this in time, don't fail to drop in for a view of the beauty queen.

* * *

That low rumble which you hear over on the east side of New York town is just steam blowing off from the 42nd annual meeting of the Chemical Specialties Manufacturers Assn., at the Hotel Roosevelt. Close to a thousand busy bees are humming around the group meetings. CSMA has come a long way. We can remember back thirty years ago when fifty people constituted a large gathering. Yes, gentle reader, things are different today, really different.

* * *

Whiskey flavored tooth paste is going great guns, according to Poynter Products Co. of Cincinnati, Don Poynter, prez. It's a luxury priced tooth paste and it comes in three delicious flavors, bourbon, rye and scotch. Why three flavors? It seems that Mr. Poynter found that in the mid-west, west and south, bourbon and scotch were popular, but in the east, the populace demanded rye flavor. It seems that hangovers have something to do with geography and that people demand their favorite flavor for brushing their teeth next morning.

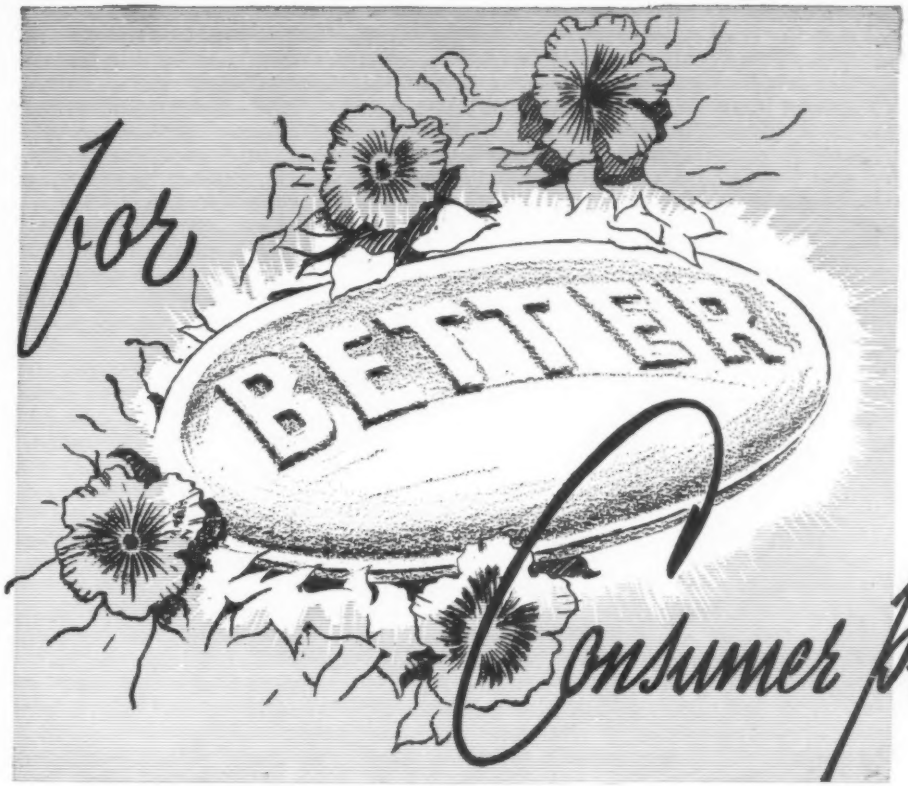
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